

**NORTHTOWNE SUNOCO, INC.**

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*Appl. 8552*

November 27, 2012

US EPA RECORDS CENTER REGION 5



461811

Response to Enclosure 4

Question 1 – Schafer Investments purchased Troy Marathon, 801 W Main St., Troy, OH 45373 on November 29, 2001 from Speedway Superamerica LLC. We have owned the premises since that date.

On the same date Northtowne Sunoco DBA Troy Marathon began a lease agreement with Schafer Investments to operate the business at this address. Both Schafer Investments and Northtowne Sunoco have the same ownership.

Question 2 – To the best of my knowledge, none of the products stored at our location contain any of the chemicals in question 2. I have included MSDS sheets for the products stored at our location.

Question 3 – Not applicable. No solid waste storage at our location.

Question 4 – No release of chlorinated solvents at our location. During 2005 excavation for a water line for the city of Troy discovered an odor of petroleum. I have enclosed the Tier 1 investigation of this incident.

Question 5 – Not applicable.

Question 6 – Since our purchase of the property no one else would have knowledge of any incident. Prior to 2001, Speedway Superamerica may have knowledge.

Question 7 – Not applicable.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

*Thomas E. Schafer*

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**PURCHASE AND SALE AGREEMENT**

**BETWEEN**

**SPEEDWAY SUPERAMERICA LLC**

**AND**

**SCHAFFER INVESTMENTS, LTD.**

*Question 1*

## PURCHASE AND SALE AGREEMENT

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## PURCHASE AND SALE AGREEMENT

THIS PURCHASE AND SALE AGREEMENT made and entered into as of the 22nd day of October, 2001, by and between **SPEEDWAY SUPERAMERICA LLC**, a Delaware limited liability company with a mailing address of 500 Speedway Drive, Enon, Ohio 45323 ("Seller"), and **SCHAFER INVESTMENTS, LTD.**, an Ohio limited liability company with a mailing address of P. O. Box 13, 9109 SR 66, Fort Loramie, Ohio 48845-0013 ("Purchaser").

### WITNESS:

WHEREAS, Seller markets petroleum products and other items at retail throughout the Midwest and Southeast portions of the United States.

WHEREAS, Seller desires to sell a portion of such business and Purchaser desires to purchase portions of Seller's retail business.

NOW, THEREFORE, in consideration of the mutual covenants set forth below, Seller and Purchaser agree as follows:

#### 1. DEFINITIONS

1.1 Terms. When used in this Agreement, each of the following terms will have the meaning attributed to it below, unless the context of its use clearly requires otherwise:

(a) "Assets" means the Real Property, the Personal Property, the Inventory, and the Contracts, but shall not include any of the Excluded Assets.

(b) "Closing" means the consummation of the transactions contemplated by this Agreement.

(c) "Closing Date" means the date upon which the Closing is scheduled to occur, which shall be on November 27, 2001 unless otherwise agreed by the parties in writing.

(d) "Contracts" means all of the Agreements described on Exhibit 1.1(d).

(e) "Corrective Action" includes, without limitation, one or more of the following environmental activities in connection with Hazardous Substances as applied to the Real Property or the real property of third parties: investigation, assessment, monitoring, sampling, analysis, cleanup, removal, disposal, on-site treatment, off-site treatment, active remediation, passive remediation, site-specific risk-based soil and groundwater cleanup objectives pursuant to a risk-based corrective action policy administered by the governmental agency with jurisdiction over such activities or such other activities required by such governmental agency or by judicial authority.

(f) "Earnest Money Deposit" means the sum of money tendered by Seller in accordance with the provisions of Section 4.2 hereof which shall be in the amount of [REDACTED] US.

(g) "Effective Time" as to any particular Site shall mean 12:00:01 a.m., local time of the Site on the day when inventory audits for the Site, conducted in accordance with Exhibit 1.1(l), are commenced.

(h) "Environmental Laws" shall have the meaning set forth in Section 1.1(j).

(i) "Excluded Assets" means those assets of Seller not specifically described as the Assets, including, without limitation, those assets listed on Exhibit 1.1(i).

(j) "Hazardous Substance(s)" means any hazardous substance, pollutant or contaminant, toxic pollutant, conventional pollutant, hazardous waste, hazardous air pollutant, toxic chemical, hazardous chemical, extremely hazardous chemical, air contaminant, hazardous material, radionuclide or radioactive material or petroleum product or oil as defined in the Clean Water Act, also known as the Federal Water Pollution Control Act, 33 U.S.C. §1251, *et seq.*, the Oil Pollution Act of 1990, 33 U.S.C. §2701, *et seq.*, the Toxic Substances Control Act, 15 U.S.C. §2601, *et seq.*, the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §9601, *et seq.*, the Superfund Amendment and Reauthorization Act of 1986, Public Law 99-499, 100 Stat. 1613, the Emergency Planning and Community Right to Know Act, 42 U.S.C. §1101, *et seq.*, the Resource Conservation and Recovery Act, 42 U.S.C. §6901, *et seq.*, the Occupational Safety and Health Act, as amended, 29 U.S.C. §655 and §657, the Clean Air Act, 42 U.S.C. §7401, *et seq.*, the Safe Drinking Water Act, 42 U.S.C. §300f to §300j-26, the Hazardous Materials Transportation Authorization Act of 1994, 49 U.S.C. §5101, *et seq.*, the Atomic Energy Act of 1954, as amended, 42 U.S.C. §§2014, 2021(d), 2022, 2111, 2113 and 2114, or any other applicable federal, state or local environmental law or the regulations promulgated thereunder, together with any amendments thereto, regulations promulgated thereunder and all substitutions thereof (collectively, the "Environmental Laws"), and any asbestos or asbestos containing substance, or oil or petroleum product, whether or not the same are defined as hazardous, toxic, dangerous waste, a dangerous substance or dangerous material in any applicable law, are located in the air, soil, surface water or groundwater or other portions of the Assets or the improvements located thereon in such quantity as would require Corrective Action under, or would otherwise violate, applicable Federal, state or local laws, or the standards contained therein, or the regulations promulgated thereunder.

(k) "Inventory" means any and all gasoline, diesel fuel, and kerosene, and any and all motor oil and lube oils, and inventories of food, supply and beverage merchandise, anti freeze, automobile maintenance products, and other convenience store merchandise and other consumable store supplies which are stocked in the normal course of Seller's operations located at the Real Property as of the Effective Time.

(l) "Inventory Price" means the value of the Inventory calculated in accordance with Exhibit 1.1(l).

(m) "Marketable Title" means fee simple title to the Sites owned in fee subject only to:

(i) any state of facts which an accurate survey would show;

(ii) restrictions, easements, rights of way, exceptions, reservations and conditions contained in prior instruments of record in the chain of title to the property in question;

(iii) legal highways, zoning and building laws, ordinances or regulations;

(iv) any lien for taxes which are not yet due and payable;

(v) rights of others to the banks, waters and flow of any river or body of water abutting the Real Property, if any;

(vi) the usual exceptions of a reputable title insurance company operating in the area where the Real Property is located;

(vii) the rights of lessees in possession of any portion of the Real Property provided that such leases are listed on Exhibit 1.1(d); and

(viii) other minor defects which do not prohibit the use of the property as it is currently used by Seller.

(n) "Personal Property" means all of the personal property located on the Real Property, which is owned by Seller as of the date hereof, including, without limitation, any UST System and motor fuel dispensers which may be located on the Real Property but excluding the Inventory and the Excluded Assets.

(o) "Purchase Price" means the sum of [REDACTED]

(p) "Real Property" means all of Seller's Sites subject of this Agreement.

(q) "Site" means the individual portions of the Assets that comprise a motor fuel filling station and convenience store, whether owned or leased, including, without limitation, the buildings, improvements and appurtenances in connection therewith. The Sites are listed on Exhibit 1.1(q).

(r) "UST System" means all underground storage tanks located on or under the Real Property on the date of this Agreement, and all piping, lines, pumps, siphons and other underground ancillary equipment and containment systems connected directly or indirectly to any such underground storage tanks, including, without limitation, required compliance wells, if any.

## 2. CLOSING

2.1 Closing. The Closing of the transactions contemplated hereunder shall take place on the Closing Date at 10:00 a.m. local time at Seller's offices in Enon, Ohio, or such other time and place as the parties shall agree in writing.

## 3. SALE AND PURCHASE OF ASSETS

3.1 Sale and Purchase. Seller agrees to sell, assign, convey, transfer and deliver or cause to be sold, assigned, conveyed, transferred or delivered to Purchaser, and Purchaser agrees to purchase, acquire and accept, the Assets on the Closing Date and on such terms as hereinafter specified.

3.2 Excluded Assets. Seller shall retain title to all of the Excluded Assets and any proceeds thereof.

#### 4. PURCHASE PRICE AND PAYMENT

4.1 Price. In consideration of the sale, transfer, conveyance, assignment and delivery of the Assets by Seller to Purchaser, Purchaser will pay to Seller the Purchase Price, and the Inventory Price, plus applicable federal, state and local sales, use, excise and transfer fees and taxes, including, but not limited to, motor fuels and superfund taxes. Purchaser shall make such payments to Seller, in accordance with Sections 4.2 through 4.5 of this Agreement, by wire transfer of immediately available funds (federal) to such account as Seller shall designate.

4.2 Earnest Money Deposit. Concurrently with the execution of this Agreement, Purchaser has tendered to Seller the Earnest Money Deposit. The Earnest Money Deposit shall be kept by Seller unless this Agreement is terminated pursuant to Article 20 for reasons other than failure to perform or other breach by the Seller. The Earnest Money Deposit will be applied as a credit towards the Purchase Price at Closing.

4.3 Evidence of Funds; Estimated Payment. At Seller's option (notice of the election of which Seller shall give to Purchaser no later than five (5) business days prior to the Closing Date), by no later 5:00 p.m. local time (of the place of Closing) on the second to last business day before the Closing Date, Purchaser shall provide to Seller evidence reasonably satisfactory to Seller of Purchaser's financial ability to perform its payment obligations under this Agreement at the time of Closing. The timely provision of such evidence to Seller is a condition to Seller's subsequent performance under this Agreement. To the extent that Purchaser is obtaining any funds required for Purchaser to Close the transactions contemplated by this Agreement (including, without limitation, the Purchase Price, the estimated Inventory Price and all Closing costs which are otherwise due from Purchaser under this Agreement or under any agreement entered into or to be entered into at Closing between Purchaser and any person or entity who is financing the transaction contemplated by this Agreement) from a third-party lender or third-party equity investor, such evidence of Purchaser's financial ability to perform shall include, without limitation, a fully executed loan commitment letter, investment agreement or similar agreement between Purchaser and all such third parties which shall contain requirements and conditions, if any, that are reasonable, which do not require modification of this Agreement and which otherwise do not require that either Purchaser or Seller act or refrain from acting in any manner that is inconsistent with the provisions and/or intentions of this Agreement. To the extent that any such commitment letter, investment agreement or similar agreement contain conditions to be fulfilled prior to Closing, Purchaser shall provide evidence reasonably satisfactory to Seller that such conditions have been fulfilled or that they can and will be fulfilled at the time of Closing. To the extent that funds necessary for Purchaser to close the transactions contemplated by this Agreement are not being obtained from a third party, evidence of the availability of such funds may be established by Purchaser's delivery to Seller of a certificate signed by an officer of Purchaser's Bank or other financial institution indicating that all such funds due at Closing are being held in Purchaser's account at such bank or financial institution, that such funds have been specifically committed to or designated for the Closing of the transactions contemplated by this Agreement and that the bank or financial institution knows of no reason why any of such funds would not be available at the contemplated date and time of Closing. The certificate shall state the actual dollar amount held or deposited in such account. With respect to those funds not being obtained from a third party, as an alternative to Purchaser evidencing the availability of such funds by a certification from Purchaser's bank or financial

institution respecting the amount and availability of such funds, at Seller's option (notice of which Seller shall give, if at all, to Purchaser no later than five (5) business days prior to the Closing Date) by no later than 12:00 noon local time (of the place of Closing) on the last business day before the Closing Date, Purchaser shall deposit such funds into escrow (with an escrow agent reasonably acceptable to Seller) and provide Seller with evidence of such escrow deposit. At Closing, the Purchaser shall pay the Purchase Price plus an amount equal to the estimated Inventory Price (determined as provided in this Section 4.3), plus an amount equal to the prorated items calculated in accordance with Section 4.5. An estimate of the value of the Inventory Price calculated in accordance with Exhibit 1.1(I), using the previous month's value of the inventory on Seller's books and the accounting records of Seller prior to the Closing Date, shall be calculated by Seller. Such estimate will be set forth in a certificate of Seller delivered to Purchaser at least three (3) business days before the Closing Date.

4.4 Final Payment. The final amount for the Inventory Price shall be determined as follows:

(a) As soon as practicable, but no later than thirty (30) days after the Closing Date, Seller shall prepare a final adjustment certificate setting forth the final computation of the price for the Inventory. The computation shall be based on the inventories taken as of the Effective Time in accordance with Exhibit 1.1(I). The difference between the estimated price paid at Closing and the final price set forth in the final adjustment certificate will be paid by Purchaser or Seller, as the case may be, within ten (10) days after receipt by Purchaser of such certificate.

(b) If Purchaser does not agree with the final Inventory Price set forth in Seller's final adjustment certificate, Purchaser will notify Seller in writing of its dispute, and the specific basis thereof, within ten (10) days after Purchaser's receipt of the final adjustment certificate. If after such notice of dispute Purchaser and Seller are unable to agree upon the final Inventory Price within thirty (30) days after Purchaser's receipt of the final adjustment certificate, they will submit the matters in dispute to a mutually acceptable independent accounting firm to resolve only the disputed items and make a determination of the final Inventory Price based thereon. Such determination will be made within sixty (60) days after submitting the matter to the accounting firm and will be binding upon the parties. The fees, cost and expenses of the accounting firm will be shared equally by Purchaser and Seller.

4.5 Prorations. Purchaser or Seller, as appropriate, shall receive a credit with respect to the following items:

(a) Real estate and personal property taxes on the Assets in accordance with Section 7.1.

(b) The value of real property lease payments, personal property lease payments, taxes, utility charges, deposits or other prepaid expenses made by Seller, if any, that are related to the Assets prorated as of the Effective Time.

4.6 Price Allocation. The Purchase Price shall be allocated among the Assets (other than the Inventory) and the Sites as set forth on Exhibit 4.6.



## 5. SURVEYS, ABSTRACTS AND TITLE INSURANCE

5.1 Surveys and Title Insurance. Seller shall not be required to provide or pay for surveys, title abstracts, title examinations or title insurance binders or policies required by Purchaser, and any such survey, abstract, binder or policy shall be obtained at the sole option and expense of Purchaser. However, no later than five (5) business days after execution of this Agreement, Seller shall provide Purchaser with copies of all deeds, leases, surveys, title abstracts and title insurance binders and policies relating to the Real Property which may now be owned or possessed by Seller. Should Closing not occur for any reason whatsoever, Purchaser shall return all copies of any such materials pertaining to the Real Property delivered by Seller to Purchaser.

5.2 Title Examination. Purchaser shall have thirty (30) days from the date hereof in which to examine title to and physically inspect the Real Property and to notify Seller in writing of any material defect in the Marketable Title to the Site to which Purchaser objects. Should Purchaser raise any objections to the title that are permitted to be raised hereunder by providing notice thereof to Seller, Seller, if it so elects, shall use reasonable efforts to cure such defects within thirty (30) days of notice thereof by Purchaser ("Seller's Cure Period"). Anything in this Agreement to the contrary notwithstanding, Seller shall have no obligation to cure title defects. In the event Seller does not cure the title defects at any Site(s) subject of Purchaser's notice, Purchaser's sole remedy shall be to terminate the Agreement as to such Site(s) by a written notice of partial termination delivered to Seller within five (5) days after the earlier of (i) the end of Seller's Cure Period or (ii) the date upon which Seller gives Purchaser written notice that it does not intend to cure the material defects set forth in Purchaser's written notice to Seller of material defect in the Marketable Title to the Site(s) (but in no event shall Seller be entitled to terminate the Agreement under this Section 5.2 later than the Effective Time), in which event the Purchase Price shall be reduced by the amount allocated to such Site as indicated on Exhibit 4.6. If Purchaser fails to object to any material defect in Marketable Title in existence prior to the last date and time permitted to raise objection to such defect, then Purchaser shall be deemed to have waived its right to object to such defect, and shall be required to accept title to the applicable Site subject to such defect. If Purchaser fails to terminate the Agreement as to any particular Site prior to the last date and time permitted to terminate the Agreement because a material defect in title in respect of that Site has not been cured, then Purchaser shall be deemed to have waived its right to terminate, and shall be required to accept title to the Site subject to such defect. Purchaser, at its option, may otherwise waive in writing any defect in Marketable Title and any right to terminate due to uncured defects in Marketable Title.

5.3 Inspections. Seller shall permit Purchaser or its representatives, for a period of thirty (30) days from the date hereof, to inspect the Real Property and conduct such inspections as Purchaser and Seller shall agree are necessary, all at Purchaser's cost and expense. However, Purchaser shall not conduct any environmental tests, samplings or borings.

5.4 On-Site Activities. Notwithstanding any other provision of this Agreement, Purchaser's right to enter the Real Property for purposes of conducting any inspection or any work agreed to by Seller shall be subject to the following restrictions:

- (i) Purchaser's activities and those of its agents, consultants or contractors under this section shall not interfere with normal operations at the Real Property;
- (ii) Purchaser shall give Seller a sufficient opportunity to review the scope of the proposed activities prior to the first such entry;

(iii) Purchaser shall obtain Seller's written approval of the scope of any inspection or work to be conducted hereunder and the choice of any agent, consultant or contractor to perform those activities prior to commencement, which approval shall not be unreasonably withheld or delayed for a period more than two (2) business days from Seller's receipt of a request for approval;

(iv) Purchaser shall notify Seller at least two (2) business days prior to entry onto the Real Property to conduct such activity;

(v) All activities undertaken in connection with an inspection or work shall fully comply with applicable law, including laws relating to worker safety;

(vi) Seller shall be permitted to have a representative present during all such investigations or work, and may copy the results of onsite testing and visual inspections, and shall have complete access to all results, and reports of Purchaser;

(vii) Purchaser shall take all actions and implement all protections necessary to ensure that actions taken under this section, and equipment, materials, and substances generated, used or brought onto the Real Property pose no threat to the safety or health of persons or the environment, and cause no damage to the property of Seller or of any other person;

(viii) Purchaser shall be solely responsible for the security of the activities, equipment and materials brought on the Real Property under this paragraph;

(ix) Purchaser shall be responsible for, and shall indemnify Seller against, any property damage or personal injury incurred by Seller or any other person as a result of Purchaser's activities and those of Purchaser's employees, agents, consultants and contractors conducted under, and as contemplated by, this section. Purchaser shall provide insurance against injury and damage to Seller or any other person, in coverage amounts and terms satisfactory to Seller;

(x) Without limiting the effect of the last clause, Purchaser shall require that any agent, consultant or contractor of Purchaser performing services under this Section provide insurance against injury and damage to Seller or any other person. Any report or other document prepared by Purchaser's agent, consultant or contractor shall be considered by all parties a confidential document, and except as specifically provided in this Agreement, shall not be given to or discussed with any third party without prior written consent of Purchaser and Seller.

## 6. TRANSFER TAXES AND RECORDING COSTS

6.1 Transfer Taxes. Seller shall be fully liable for and pay the cost of all Federal, state or local documentary or transfer, or sales and use taxes or costs assessed with respect to the Real Property conveyed to Purchaser under this Agreement.

6.2 Recording Fees. Purchaser shall be fully liable for and pay the cost for the recording of any deed or other instrument by which any of the Assets are conveyed to Purchaser hereunder.

## 7. REAL ESTATE TAXES, ASSESSMENTS AND UTILITIES

7.1 Real Estate Taxes. All real estate taxes and prepaid utility charges or assessments on the Assets shall be prorated between Seller and Purchaser as of the Effective Time on the basis of the most recently available bills with a post-Closing adjustment after receipt of the actual current tax bills. Seller will be responsible for all personal property taxes assessed in respect of personal property tax returns filed by it in regard to the Assets prior to the Closing Date and such taxes shall either be (i) paid before or at the time of Closing or (ii) taken as a credit to Purchaser against the Purchase Price. From and after the Effective Time, Purchaser shall be fully liable for and pay all taxes, utility charges, assessments and other expenses relating to the Assets conveyed hereunder. Seller shall forward to Purchaser any tax bills associated with the Assets for such periods.

7.2 Assessments. Prior to the Closing Date, Seller shall pay or discharge any special assessment or other charge, or installment thereof, of which Seller has notice, which is a lien on the Assets as of the Closing Date provided that Seller shall not be liable for any installment of any such assessment or charge which is not due and payable on or before the Closing Date.

## 8. RISK OF LOSS, CASUALTY AND CONDEMNATION

8.1 Loss of Assets. Except as may otherwise be provided herein, risk of loss to the Assets, from any and all causes other than the acts or omissions of Purchaser or those of Purchaser's employees, agents, consultants or contractors, shall be borne by Seller before the Effective Time. Risk of loss to the Assets, from whatever cause, shall be borne by Purchaser on or after the Effective Time.

8.2 Casualty Loss. If, by or from any cause other than the acts or omissions of Purchaser or those of Purchaser's employees, agents, consultants or contractors, any of the buildings or improvements located on the Real Property are damaged or destroyed prior to the Effective Time, or if any of the Personal Property is damaged or destroyed prior to the Effective Time so that the total value of the Site and the portion of the Assets connected therewith is materially impaired, Purchaser shall have the option:

(i) to complete the purchase of the Assets as is and receive any insurance proceeds payable for such losses, or

(ii) to terminate this Agreement with respect to such Site, in which event the Purchase Price will be reduced by the allocated amount for such Site set forth in Exhibit 4.6.

8.3 Condemnation. In the event that all or any material part of any Site becomes the subject of a condemnation proceeding after the date hereof and prior to Closing, Seller agrees to immediately advise Purchaser thereof. In the event of such condemnation, Purchaser shall have the option to:

(i) complete the purchase of such Site and take title thereto in accordance with the terms and conditions of this Agreement and negotiate with the condemning authority for the condemnation award and receive the benefits thereof; or

(ii) to terminate this Agreement with respect to such Site, in which event the Purchase Price will be reduced by the allocated amount for such Site set forth in Exhibit 4.6.

9. REPRESENTATIONS AND WARRANTIES BY SELLER. Seller represents and warrants to Purchaser that as of the date hereof and as of the Closing Date, the following statements are true and correct:

9.1 Authority to do Business. Seller is a limited liability company duly organized, validly existing and in good standing under the laws of the State of Delaware, and has all necessary power and authority to execute, deliver and perform this Agreement and each agreement and instrument to be executed and delivered by Seller pursuant thereto. Seller is in good standing in each of the states in which the Real Property is located.

9.2 Authorizations. The execution, delivery and performance by Seller of this Agreement and each instrument and agreement to be executed and delivered by Seller pursuant hereto, and the taking by Seller of the actions contemplated hereby, have been duly authorized by all necessary limited liability company action on behalf of Seller, and do not and will not violate any provisions of Seller's Certificate of Formation or LLC Agreement, or any agreement, stipulation, judgment, or consent order or, to the best of Seller's knowledge, any applicable local, state or federal law or regulation to which Seller is a party or by which it is bound. Each original of this Agreement, when executed and delivered by Purchaser, each agreement and instrument to be executed and delivered by Seller pursuant hereto, is or will be, as appropriate, a valid and binding obligation of Seller, enforceable in accordance with its terms, subject to execution and delivery of the same by Purchaser, except as the enforceability thereof may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting the enforcement of creditors' rights generally and general principles of equity (regardless of whether enforceability is considered in a proceeding at law or in equity).

9.3 Title. With respect to the Sites owned in fee by the Seller, and with respect to Seller's buildings, improvements and appurtenances located on such Sites, Seller has Marketable Title. With respect to the Personal Property, and the Inventory, Seller has free and clear title except for liens, if any, for personal property taxes which are not yet due and payable and for which Seller has not yet received a tax bill.

9.4 Litigation. Except as set forth in Exhibit 9.4, there are no actions, suits, claims, arbitrations, or proceedings pending or, to Seller's knowledge, threatened before any court, tribunal, arbitrators or other governmental authority, against or involving, any of the Assets or Seller, which

- (i) would prohibit any of the transactions contemplated by this Agreement,
- (ii) prevent a Seller from performing any of its obligations contemplated by this Agreement, or
- (iii) are material to the ownership or operation of the Real Property.

With written notice thereof to Purchaser, Seller shall be entitled to modify Exhibit 9.4 prior to Closing in the event that Seller shall become aware of any such pending or threatened actions, suits, claims or proceedings.

9.5 Licenses and Permits. Except as set forth in Exhibit 9.5, Seller possesses all licenses and permits required by law, necessary to operate the Assets in the manner currently conducted by the Seller, except where the failure to possess such licenses and permits would not result in a material adverse effect on the operations as a whole. Except as set forth in

Exhibit 9.5, there are no unresolved notices of violation with respect to any such license or permit which would either (i) prevent the transfer of such license or permit from Seller to Purchaser or (ii) prevent Purchaser from otherwise obtaining such license and permit. With written notice thereof to Purchaser, Seller shall be entitled to modify Exhibit 9.5 prior to Closing in the event that Seller shall become aware of any additional unresolved notices of violation which would delay or prevent Purchaser from obtaining a necessary license or permit.

9.6 Leases of Real Property. Exhibit 9.6 contains an accurate and complete list of all leases ("Leases") of real property, included in the Real Property. The Leases, if any, are legal, valid and binding obligations of Seller, enforceable against such Seller in accordance with their terms, except as the enforceability thereof may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting the enforcement of creditors' rights generally and general principles of equity (regardless of whether enforceability is considered in a proceeding at law or in equity), and are in full force and effect.

9.7 Environmental Law Compliance. Seller is, and shall be as of Closing, in substantial compliance with all Environmental Laws necessary to be complied with in order to qualify each Site and the UST System, if any, at each Site for participation in any and all applicable environmental reimbursement or funding programs relative to Corrective Action which may now or hereafter be necessary as a result of pre-Closing releases, if any, of Hazardous Substances on, at, under or emanating from the Site. Exhibit 9.7 identifies all releases of Hazardous Substances at the Sites known to Seller for which no "no further action" letter or its functional equivalent has been issued by a governmental agency having jurisdiction over such matters under the state environmental regulatory scheme (hereinafter, "Known Releases"). Except as identified on Exhibit 9.7, there are no Known Releases on, at, under or emanating from any Site. With written notice thereof to Purchaser, Seller shall be entitled to modify Exhibit 9.7 prior to Closing in the event that Seller shall become aware of any additional Known Releases at the Site.

9.8 Disclaimer. Purchaser acknowledges that it has made its own investigation as to the nature and extent of the Assets and has inspected the physical condition of the Assets. Except as specifically provided in this Article 9, THE SALE OF THE ASSETS IS MADE BY SELLER WITHOUT REPRESENTATION OR WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, AS TO THE CONDITION OF THE ASSETS (INCLUDING, WITHOUT LIMITATION, THE SOIL, WATER, GEOLOGY OR ENVIRONMENTAL CONDITION OF THE ASSETS), THEIR MERCHANTABILITY, WHETHER THE ASSETS ARE FREE OF PETROLEUM, PETROLEUM RESIDUE OR HAZARDOUS SUBSTANCES, OR THEIR FITNESS FOR PURCHASER'S INTENDED USE. THE ASSETS ARE SOLD ON AN AS-IS, WHERE-IS BASIS, AND BY ITS ACCEPTANCE OF THE ASSETS, PURCHASER EXPRESSLY RELIEVES AND EXONERATES SELLER OF ANY RESPONSIBILITY FOR THEIR PHYSICAL CONDITION (EXCEPT AS SPECIFICALLY PROVIDED FOR IN SECTION 11.10), MERCHANTABILITY OR FITNESS FOR ANY PURPOSE. SELLER'S WARRANTIES AND GUARANTEES SET FORTH HEREIN ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES AND GUARANTEES OF ANY KIND (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURCHASER'S INTENDED USE), WHETHER WRITTEN OR ORAL OR IMPLIED IN FACT OR IN LAW. PURCHASER HEREBY ACKNOWLEDGES THAT SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY OR COMPLETENESS OF ANY SURVEY, TITLE ABSTRACTS, TITLE EXAMINATIONS OR REPORTS, STRUCTURAL OR ENVIRONMENTAL SURVEYS OR REPORTS, OR WITH RESPECT TO ANY DESCRIPTION OF THE PROPERTY CONTAINED IN ANY CATALOG, BOOKLET OR SALES LITERATURE OR OTHER DATA OR

INFORMATION RECEIVED DIRECTLY OR INDIRECTLY FROM SELLER PRIOR TO EXECUTION OF THIS AGREEMENT.

10. REPRESENTATIONS AND WARRANTIES OF PURCHASER. Purchaser represents and warrants to Seller that as of the date hereof and as of the Closing Date, the following statements are true and correct:

10.1 Authority to do Business. Purchaser is a limited liability company duly organized, validly existing and in good standing under the laws of the State of Ohio, and has all necessary power and authority to execute, deliver and perform this Agreement and each agreement and instrument to be executed and delivered by Purchaser pursuant hereto.

10.2 Authorization. The execution, delivery and performance by Purchaser of this Agreement and each instrument and agreement to be executed and delivered by Purchaser pursuant hereto, and the taking by Purchaser of the actions contemplated hereby, have been duly authorized by all necessary corporate action on behalf of Purchaser, and do not and will not violate any provisions of Purchaser's Certificate of Incorporation or Bylaws, or any agreement, stipulation, judgment, or consent order or, to the best of Purchaser's knowledge, any applicable local, state or federal law or regulation to which Purchaser is a party or by which it is bound, and each original of this Agreement, when executed and delivered by Seller, each agreement and instrument to be executed and delivered by Purchaser pursuant hereto, is or will be a valid and binding obligation of Purchaser, enforceable in accordance with its terms, subject to execution and delivery of the same by Seller, except as the enforceability thereof may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar laws affecting the enforcement of creditors' rights generally and general principles of equity (regardless of whether enforceability is considered in a proceeding at law or in equity).

10.3 Litigation. Except as set forth in Exhibit 10.3, there are no actions, suits, claims, arbitrations, or proceedings pending or, to Purchaser's knowledge, threatened before any court, tribunal, arbitrators or other governmental authority, against or involving, any of the Assets or Purchaser, which would prohibit any of the transactions contemplated by this Agreement, prevent a Purchaser from performing any of its obligations contemplated by this Agreement, or are material to the ownership or operation of the Real Property.

10.4 Environmental. Purchaser knows that the Real Property is operated and has been operated as a gasoline station and convenience store with above-ground storage tanks, a UST System or both; that the Real Property may have soil or groundwater contamination as the result of such usage; and that it is an expert or has consulted with experts in legal requirements pertaining to such tanks and systems, petroleum products, and Hazardous Substances.

10.5 Financing. Purchaser has, and will have on the Closing Date, the financial ability to perform its obligations hereunder.

## 11. COVENANTS

11.1 Operation of Business. From the date hereof to the Closing Date, unless acting under Purchaser's direction, Seller shall:

(i) operate the Assets within the ordinary course of its business, including, without limitation, the performance of Corrective Actions and any emergency response activities,

(ii) maintain in effect the insurance coverage, if any, now in force with respect to the Assets,

(iii) not engage in any transactions outside the ordinary course of business as to the Assets, and

(iv) not sell or dispose of any of the Assets nor encumber the Assets other than in the ordinary course of business.

11.2 Access. Prior to the execution hereof and subject to Section 11.4, Seller has granted Purchaser access to the data, files and information relating to the Assets. From and after the date of this Agreement, subject to Section 11.4 and prior to the Closing Date, Seller will give to Purchaser and its representatives access during normal business hours to the offices of Seller used in operating the Assets and to the files and records pertaining to the transaction contemplated hereby provided that such access shall not unreasonably interfere with Seller's operations.

11.3 Hart-Scott-Rodino Filings. If applicable, each party shall submit filings in connection with the transactions contemplated by this Agreement under the Hart-Scott-Rodino Antitrust Improvements Act of 1976 (the "HSR Act"), 15 U.S.C. §18a, promptly after the execution hereof.

11.4 Confidentiality. Each party acknowledges that, pursuant to its right of access to books and records, they have had and will have access to confidential information of other parties hereto and that communication of such information to third parties (unless such communication of information is authorized prior to disclosure thereof in writing) would irreparably injure the party to whom such information pertains in the event that the transaction contemplated hereby is not consummated. Purchaser has previously executed a Confidentiality Agreement dated February 21, 2001 (hereinafter, the "Confidentiality Agreement") in which Purchaser agreed to keep confidential the information about the Assets furnished to Purchaser by or on behalf of Seller. The parties acknowledge and agree that the Confidentiality Agreement shall remain in effect as written except to the extent, if at all, that it is explicitly modified by the terms of this Agreement. If all or any part of the Closing should not occur for any reason, all confidential information concerning any party, or any of the businesses or operations obtained by other parties pursuant to or in anticipation of executing this Agreement, pertaining solely to the part of this transaction which is not closed, shall be returned to the party to whom it pertains or be destroyed under the terms of the Confidentiality Agreement and the obligations under the Confidentiality Agreement shall survive the termination of this Agreement indefinitely. Information which relates to the portion of the transaction which does close may be used by the parties and disclosed to third parties as necessary in the ordinary course of business.

11.5 Conditions. All parties shall use all reasonable efforts to cause the mutual conditions precedent to their obligations, and the conditions precedent to the obligations of the parties to be satisfied on or before the Closing Date.

11.6 Maintenance of and Access to Records. For a period after the Closing Date, each party shall each maintain files, books and records (including those delivered to another) relating to the Assets. Such period shall be equal to the applicable regulatory period for governmental audit of such records, and in no event less than three (3) years. During such period, each party shall have access to such files, books or records during normal business

hours upon advance written notice to the other party in connection with federal, state or local regulatory or tax matters, resolution of existing disputes or contract compliance matters affecting the party and to audit the same. Further, during such period, each party shall provide to the other party such assistance as is reasonably requested in the review and analysis of such files, books, and records. Such assistance will include, but not be limited to, providing tax data for the period of time through the Closing Date; providing space, facilities and assistance to the requesting party's internal and external auditors to complete their audit work; assisting the requesting party in responding to questions and issues raised by tax authorities during their audits of periods ending prior to or including the Closing Date; and providing information which may be relevant to the requesting party in defending or pursuing claims or litigation by or against the requesting party.

The party requesting assistance hereunder shall reimburse the other party for reasonable out-of-pocket expenses and agree on a fee for providing such assistance.

11.7 Permissions. Purchaser shall be responsible for obtaining at its cost all consents, licenses, registrations, and permits needed or desirable to operate the Assets after Closing. Seller will cooperate and use reasonable efforts to assist Purchaser in obtaining and transferring such permits, registrations and licenses, and all permissions, approvals and consents by federal, state and local governmental authorities and others as may be required to effect the transaction contemplated by this Agreement.

11.8 Signage. Purchaser acknowledges that the Real Property is operated as a gasoline station and convenience store under one or more of the trademarks or trade names of Seller. Purchaser agrees to re-sign and re-image all locations not later than 6:00 p.m. on the Closing Date. Seller will remove at its cost, all signs, posters and other indicia of such trademarks and trade names. Seller agrees to remove only the face of the signs and will not remove the poles, posts or frame portions of such signs.

11.9 Reimbursement of Corrective Action Costs. Any money expended by Seller for Corrective Action which is later reimbursed by a state fund or recovered from a third party shall be paid over to Seller by Purchaser if and when such funds are received by Purchaser. Any money expended by Purchaser for Corrective Action which is later reimbursed by a state fund or recovered from a third party shall be paid over to Purchaser by Seller if and when such funds are received by Seller. Each party shall give all reasonable cooperation to the other party in connection with all applications for such reimbursement, including any assignment of the proceeds of such reimbursement to the other party, where such an assignment is executed pursuant to this paragraph.

If the Environmental Laws governing the state reimbursement fund prohibit the assignment of reimbursement rights, Seller shall, if eligible to do so, at Purchaser's option and sole expense, make application for reimbursement in Seller's own name and remit to Purchaser any such reimbursement funds received for monies expended by Purchaser for Corrective Action.

11.10 Post-Closing Corrective Action.

(a) Seller will after Closing, at its cost, complete or cause to be completed all Corrective Action required by applicable Environmental Laws in connection with the petroleum impacts identified by Seller on Exhibit 9.7. Such projects will be deemed completed at such time as Seller receives a "no further action" letter, or equivalent thereof, under the applicable



state environmental regulatory scheme and Seller's obligations under this Section 11.10 shall continue until such time even if Purchaser shall have sold or otherwise transferred the Sites identified on Exhibit 9.7 to a third party prior to such time.

(b) After the Effective Time, Seller shall have complete control of all investigation, remediation and other activities related to Corrective Action for which Seller is responsible under this Section 11.10. Seller will give Purchaser reasonable advance notice of the scope of Seller's proposed activities. Purchaser grants to Seller, its agents and contractors, and Purchaser will cause any and all of its successors to grant to Seller, its agents and contractors, access to and use of the affected Sites for the purposes of carrying out Seller's obligations under this Agreement. Without limiting the generality of the foregoing, Seller shall have the right to install, inspect, operate and remove remediation systems, monitoring wells, and other equipment related to the performance of assessment, remediation, monitoring or other Corrective Action work on or within such Real Property, to remove and sample soil or groundwater, and to perform any other work related to the Corrective Action, provided that none of such activities shall unreasonably interfere with Purchaser's use of the affected Sites. Seller shall require that any of such agents and contractors have insurance coverage in amounts and on terms reasonably satisfactory to Seller and Purchaser prior to the time that agent or contractor has access to any affected Site. Seller will use reasonable efforts to notify Purchaser before entering upon an affected Site to conduct activities permitted hereunder, but any failure or inability by Seller to so notify Purchaser will not preclude any such activities from being conducted. Purchaser will not prohibit, interfere with, or obstruct, and will cause its successors not to prohibit, interfere with, or obstruct, the activities permitted hereunder. In addition, Seller shall perform or cause to be performed all such investigatory and remedial work at the affected Sites contemplated by this Section 11.10 in compliance with applicable Environmental Laws.

(c) Purchaser will agree, and will cause its successors to agree, to reasonable restrictions upon the use of any affected Site which may be necessary in order for the issuance of a "no further action" letter, or equivalent thereof. As respects the Sites identified on Exhibit 9.7, restrictions which shall be deemed by Seller and Purchaser to be "reasonable" include, without limitation, any (i) land use restrictions requiring that the use of a Site be limited to commercial uses or activities; (ii) prohibition on the use or installation of domestic water wells at a Site; or (iii) requirements relating to the maintaining of any impervious cover (such as concrete or asphalt) at any affected Site or any portion thereof.

(d) Purchaser shall at all times be in substantial compliance with all Environmental Laws (including, without limitation, those applicable to the registration of UST Systems, the payment of fees and the satisfaction of all financial responsibility requirements) necessary to be complied with in order to qualify the UST Systems and the Sites for participation in any and all applicable environmental reimbursement or funding programs relative to any and all Corrective Action which Seller is required to perform pursuant to this Section 11.10 and otherwise shall take no action nor fail to act in any way such as would cause Seller to be ineligible or unable to obtain reimbursement or funding for the Corrective Action which Seller is required to perform from any and all applicable environmental reimbursement or funding programs. Purchaser shall cause all subsequent operators or owners of the Site to agree to the same obligations set forth in this Subsection 11.10(d) for the benefit of Seller.

(e) In the event of the occurrence of a release of Hazardous Substances after Closing at a Site for which Seller remains obligated under this Section 11.10, Purchaser agrees to provide Seller with prompt notice thereof. Within ten (10) business days after the delivery of such notice or such other time as the parties may agree, the parties shall confer as

to, and shall take such steps as are necessary to determine, (i) whether the subsequent release can be segregated from Seller's remediation of existing contamination on such Site for which Seller is responsible ("Seller Contamination"), (ii) if the subsequent release is material and cannot be segregated from Seller Contamination, the procedures for remediating the portions of the Seller Contamination and the subsequent release that are not segregated in the most economical manner practicable, and (iii) the method of allocating Corrective Action costs related thereto between Purchaser and Seller. If the subsequent release and the Seller Contamination can be segregated, each party shall control and be responsible for the remediation for which it is responsible, unless otherwise agreed by the parties. If the subsequent release and the Seller Contamination cannot be segregated and the parties are unable to reach agreement as to the issues referred to above within forty-five (45) days after the delivery of the notice of the discovery of a subsequent release, then the parties shall engage, within five (5) business days after the expiration of such forty-five (45) day period, an independent environmental consultant mutually agreeable to both parties with experience in remediating and managing the type of contamination found at the affected Site to render an opinion concerning the disputed issues, which opinion shall be final and binding on all parties. Each party shall be entitled to review and have access to all documentation reasonably necessary to support the amount of Corrective Action costs incurred pursuant to this subsection for which each party is responsible.

## 12. EMPLOYMENT MATTERS

12.1 Employees. Purchaser will offer to substantially all of the employees of Seller employed at the Site immediately prior to the Effective Time (but not including employees above the store manager level), the opportunity to become employees of Purchaser, provided that such employees meet Purchaser's established standards and requirements for employment. Such offer shall be at base salaries or wage rates comparable to those in effect for Seller's employees. Purchaser shall not assume any employee benefit or compensation plans, programs, agreements or practices of Seller or its affiliates, or any obligations or liabilities associated therewith. Seller shall be responsible for compensating all of Seller's employees for earned but unused vacation time upon termination of employment with Seller, regardless of whether such employees are to become employees of Purchaser.

12.2 Employee Benefits. Each employee who accepts Purchaser's offer of employment and who meets Purchaser's eligibility and other requirements shall be eligible to enroll in Purchaser's benefit plans and employment practices, and shall receive full credit for their prior years of service with Seller for the purposes of Purchaser's vacation plan and for eligibility and vesting rights, only (but not for purposes of benefit accrual) under any other employee benefit plans or practices.

12.3 Family and Medical Leave. During a period of leave granted to an employee pursuant to the Family and Medical Leave Act or similar state law (hereinafter referred to collectively as "FMLA") within twelve (12) weeks of the Closing Date, Seller agrees to continue to permit the employee on FMLA leave to continue to participate in Seller's benefit plans and employment practices to the extent required under the FMLA or any similar state law. At the end of the FMLA leave period, Purchaser shall offer employment to the employee on the same basis as employment was offered to other similarly situated employees who were not on such a leave, provided the employee returning from leave can perform the essential functions of their former position or an equivalent position with or without a reasonable accommodation.

12.4 COBRA. Seller agrees that it shall be solely responsible for providing any and all notices, election forms, and related continuation coverage that may become due or be required

with respect to any employee of Seller under §4980B of the Internal Revenue Code of 1986, as amended ("the Code") on account of such employee's termination from employment with Seller or on account of any other qualifying event (as defined in IRC §4980B) which occurs (or relates to continuation coverage which may commence) on or before employment, if any, of such individual by Purchaser.

12.5 Worker Adjustment and Retraining Notification Act. Prior to the Closing Date, Seller shall have responsibility for making any and all necessary employee notifications under the Worker Adjustment and Retraining Notification Act and comparable state laws. After the Closing Date, Purchaser shall have such responsibility.

12.6 No Third Party Beneficiaries. Nothing expressed or implied in this Agreement is intended to confer upon or deny any employee of Seller any rights or remedies, including, but not limited to, any rights of employment with Seller or Purchaser for any specified period of time.

### 13. MARATHON BRAND™ AGREEMENTS

13.1 Marathon Brand™ Agreements. In addition to the provisions of Article 14, the obligations of Seller under this Agreement are subject to the delivery of (or written waiver by Seller of such requirement), at Closing, the following executed agreements between Purchaser and Marathon Ashland Petroleum LLC: Products Supply Agreement and Conversion Agreement. Purchaser acknowledges that as a condition of its execution of such agreements, Marathon Ashland Petroleum LLC will require evidence satisfactory to Marathon Ashland Petroleum LLC of Purchaser's financial condition sufficient to enable it to establish a credit limit and credit terms under such agreements.

### 14. CONDITIONS TO OBLIGATIONS

14.1 Seller's Conditions. The obligations of Seller under this Agreement are subject to performance of, compliance with, or written waiver of the following conditions by the Closing Date:

(a) Purchaser shall have complied with and performed all the terms, covenants and conditions of this Agreement to be complied with and performed by it at or before the Closing Date.

(b) No action or proceeding shall have been instituted or threatened or jurisdiction asserted before or by any court or governmental body or agency to restrain or prohibit the consummation of the transactions contemplated in this Agreement and there shall exist no state of facts which would serve as the basis for such action or proceeding.

(c) All of the representations and warranties made by Purchaser in this Agreement shall be true and correct in all material respects on and as of the Closing Date, except with respect to representations or warranties which are made only as of a specific earlier date.

(d) The waiting period shall have expired under the HSR Act, following the applicable filings, if any, thereunder.

14.2 Purchaser's Conditions. The obligations of Purchaser under this Agreement are subject to performance of, compliance with or written waiver of the following conditions by the Closing Date:

(a) Seller shall have complied with and performed, in all material respects, all the terms, covenants and conditions of this Agreement to be complied with and performed by it at or before the Closing Date.

(b) No action or proceeding shall have been instituted or threatened or jurisdiction asserted before or by any court or governmental body or agency to restrain or prohibit the consummation of the transactions contemplated in this Agreement and there shall exist no state of facts which would serve as the basis for such action or proceeding.

(c) All of the representations and warranties made by Seller in this Agreement shall be true and correct in all material respects on and as of the Closing Date, except with respect to representations or warranties which are made only as of a specific earlier date.

(d) The waiting period shall have expired under the HSR Act following the applicable filings, if any, thereunder.

## 15. INDEMNITY, OFFSET AND LIABILITIES

### 15.1 Seller's Indemnity.

(a) Except as provided in Section 15.4, Seller will indemnify, defend and hold Purchaser harmless from any and all losses, damages, taxes, penalties, interest, claims, suits or actions, judgments and costs (including reasonable attorney fees) that arise with respect to the Assets and are attributable to the Seller's ownership and operation of the Assets prior to the Effective Time and that arise out of or are based on:

(i) any injury to or death of any person or persons (including Seller's employees and agents), but excluding (except as to workers' compensation claims asserted by Seller's employees and except as provided in Section 15.1(b)) any injury or death caused by or arising out of a release of any Hazardous Substance(s) where a claim for such injury or death has not been asserted prior to the Effective Time,

(ii) damage to any property [including, without limitation, property of Seller (excluding the Assets to be sold to Purchaser) and property of Seller's employees and agents], but excluding damages connected with contamination, pollution or adverse effects on the environment by Hazardous Substances except as provided in Section 15.1(b),

(iii) the failure or breach of any representation or warranty of Seller contained in this Agreement, or

(iv) violation of or failure to comply with any applicable law, regulation, rule or order other than Environmental Laws (except where Seller's violation or failure to comply with Environmental Laws pertains to Known Releases as defined and described in Section 9.7 and Exhibit 9.7).

(b) Seller will indemnify, defend and hold Purchaser, its subsidiaries, affiliates, successors, assigns, employees and agents, harmless from any and all losses, damages, taxes, penalties, interest, costs and expenses, including reasonable attorneys' fees and costs of defense, (collectively in this Section 15.1(b), "Damages") to the extent that such Damages arise from that portion of claims, causes of action, suits or judgments asserted, initiated or obtained, as applicable, by independent third parties with respect to Known Releases at the Sites or the Corrective Action thereof conducted by Seller or any of Seller's employees, consultants or contractors. Without limitation, any person or other entity benefiting, either now or in the future, from the indemnity set forth above in this Section 15.1(b) shall be deemed not to be an independent third party. Anything in this Section 15.1(b) to the contrary notwithstanding, Seller will indemnify and hold Purchaser, its subsidiaries, affiliates, successors, assigns, employees and agents, harmless from any damage, loss cost or expense related to bodily injury, including death, incurred by any such indemnitee caused by or arising from Corrective Action for which Seller is responsible pursuant to Section 11.10 of this Agreement. Indemnities under this Section 15.1(b) will not be subject to the limitations of Section 15.4.

(c) The rights granted in this Section 15.1 are provided to Purchaser only and may not be assigned or transferred by operation of law or otherwise to any third party without the prior written consent of Seller.

#### 15.2 Purchaser's Indemnity.

(a) Except where Seller has agreed to indemnify, defend and hold harmless Purchaser as provided in Section 15.1, Purchaser will indemnify, defend and hold Seller, its subsidiaries, affiliates, successors, assigns, employees, and agents harmless from any and all losses, damages, taxes, penalties, interest, claims, suits, or actions, judgments, and costs (including reasonable attorney fees) that arise with respect to the Assets and are attributable to the period from and after the Effective Time, including, without limitation, those that arise out of or are based on:

(i) any injury to or death of any person or persons (including Purchaser's employees and agents),

(ii) damage to any property (including property of Purchaser or Purchaser's employees and agents),

(iii) the failure or breach of any representation or warranty of Purchaser contained in this Agreement,

(iv) violation of or failure to comply with any applicable law, regulation, rule or order relating to occurrences with respect to the Assets, or

(v) the transfer of the Assets to Purchaser hereunder.

(b) In addition to Purchaser's indemnities provided for in Section 15.2(a) and except where Seller has agreed to indemnify, defend and hold harmless Purchaser as provided in Section 15.1(b), Purchaser will indemnify, defend and hold Seller, its subsidiaries, affiliates, successors, assigns, employees, and agents harmless from any and all losses, damages, taxes, penalties, interest, claims, suits, or actions, judgments, and costs (including reasonable attorney fees) that arise with respect to the Assets and that are attributable to, arise out of or are based on, any property damage, personal injury, cost or liabilities caused at any time by, or in

any manner connected with, contamination, pollution or adverse effects on the environment by a Hazardous Substance, including, without limitation, the cost of Corrective Action relating to any operations conducted thereon or ownership of the Assets, the presence on or about the Assets or migrating from the Assets of any Hazardous Substance, including, but not limited to, any liability imposed under the Environmental Laws or common laws; regardless of whether the event causing such presence occurred before or after the Effective Time.

(c) Purchaser acknowledges that the indemnities contained in this Section 15.2 are a material part of the consideration for inducing Seller to enter into this Agreement.

### 15.3 Claims Procedures.

(a) For Seller or Purchaser ("Claimant") to make a claim against the other ("Indemnitor") under this Article 15, Claimant shall give prompt notice to Indemnitor of the institution of any applicable actions, suits, proceedings, assessments, injuries, losses, claims and demands at any time instituted against or made upon Claimant. The notice shall include the amount and circumstances surrounding the claim. At the time of giving such notice, Claimant shall give Indemnitor full authority to proceed, defend, adjust, compromise or settle such claim, action, suit, proceeding, assessment or demand in the name of Claimant or otherwise as Indemnitor shall elect, provided that Indemnitor agrees in writing that it has responsibility to indemnify, hold harmless and defend under this Article 15, and further provided that any settlement or compromise reached by Indemnitor with respect to such claim, action, suit, proceeding, assessment or demand shall include a full release of the Claimant and, unless otherwise provided for herein or consented to by Claimant, shall not impose any obligations on Claimant to act or refrain from acting in any particular manner that otherwise would not be illegal. In any administrative or legal proceeding relating to liabilities described in this Article 15, Indemnitor shall employ counsel selected by it and acceptable to Claimant. The Claimant shall provide reasonable assistance to Indemnitor in defense of any claims. In addition to any other rights of Claimant, the failure of the Indemnitor to satisfy the requirements of this Article will result in a forfeiture of the Indemnitor's rights under this Article with respect to the claim in question.

(b) Without limiting its obligations under any other provisions of this Agreement, Indemnitor shall be solely responsible for responding to and complying with any administrative order, request, investigation, inquiry or demand relating to Environmental Laws or to potential or actual Hazardous Substances on, at, under or migrating from the Real Property which is covered by Indemnitor's indemnity obligation, where such order, request, investigation, inquiry or demand names the Indemnitor or the Claimant alone, or both. The responsibility conferred under this Section 15.3(b) includes, but is not limited to, responding to such order on behalf of the Claimant defending against any assertion of the Claimant's financial responsibility or individual duty to perform under such orders. The Indemnitor shall assume, pursuant to Section 15.1 or 15.2, as applicable, any liabilities or responsibilities which are assessed against the Claimant in any action described under this Section 15.3(b). The Indemnitor shall provide to the Claimant copies of all communications, filings or other writings, photographs or materials given to or received from any person, entity or agency in connection with any claim, order, request, investigation, inquiry or demand described in this Section 15.3(b) or with any Corrective Action conducted by the Indemnitor, and shall notify the Claimant and permit the Claimant's representative to attend any meeting or oral communications relating thereto.

(c) If Seller shall receive a notice of assessment of tax on Seller from any taxing authority for taxes for which Purchaser has sole responsibility under this Agreement, Seller shall notify Purchaser of any such assessment at least ten (10) days prior to the expiration of the appeal or protest period and shall reasonably cooperate with Purchaser at Purchaser's expense in filing an appeal or protest. If Seller provides Purchaser with proper notice of the assessment and after the assessment becomes final, the taxes are paid by Seller, or Seller is required to collect or pay any thereof, Purchaser shall reimburse Seller therefor (plus any penalties, fines or interest thereon) promptly upon demand.

15.4 Limitations on Indemnity. Seller shall have no liability for any indemnity obligation under Section 15.1 [except for the indemnity provided for in Section 15.1(b)] unless and until any single claim for indemnity exceeds Ten Thousand Dollars (\$10,000.00) and the aggregate liability for all such claims exceeds the sum of Forty Thousand Dollars (\$40,000.00) and then only in the amount by which such liability to the Purchaser exceeds Forty Thousand Dollars (\$40,000.00) in the aggregate. Anything herein to the contrary notwithstanding, Seller's aggregate liability for any breaches of the representations or warranties contained herein shall not exceed the Purchase Price.

15.5 Waiver and Release. Without limiting the above, except as may be provided for in Section 15.1(b) above, Purchaser, for itself, its successors, and assigns, agrees to waive its right to recover from Seller and forever releases and discharges Seller from any and all costs for any Correction Action, damages, claims, losses, liabilities, penalties, fines, liens, judgments, costs, or expenses whatsoever (including, without limitation, attorneys fees and costs), whether direct or indirect, known or unknown, foreseen or unforeseen, that may arise on account of or in any way be connected with the physical condition of the Assets or any law or regulation applicable thereto, including, without limitation, the Environmental Laws or pursuant to this Agreement.

15.6 Survival. Any claim for breach of the representations and warranties contained in this Agreement must be brought within twenty-four (24) months of the Closing Date. Any claim for indemnity against Seller (i) if made pursuant to Section 15.1(b), must be brought prior to the time that Seller receives, with respect to the Known Release or Corrective Action subject of the claim, a "no further action" letter, or equivalent thereof, under the applicable state environmental regulatory scheme, and (ii) if made pursuant to any other indemnity provision in this Agreement, must be brought within three (3) years after the Closing Date.

## 16. LIMITATION ON DAMAGES AND OTHER REMEDIES

16.1 Consequential and Punitive Damages. Notwithstanding any other provision herein to the contrary, Seller shall not be liable to Purchaser, nor Purchaser to Seller for consequential or punitive damages as a result of any failure to close or any other default or breach hereunder, including failure or breach of any representation or warranty or covenant, and neither Seller nor Purchaser shall make any claim for such damages. However, if Seller elects to remove any Site from the transaction at Seller's discretion, Purchaser shall be entitled to receive from Seller at Closing a cash payment of liquidated damages in the amount of Twenty-Five Thousand Dollars (\$25,000.00), in addition to a reduction in the Purchase Price by the amount allocated to such removed Site as indicated on Exhibit 4.6. The obligation of Seller to pay liquidated damages for removal of a Site from the transaction shall not apply to any removal of a Site due to an objection or request by Purchaser under Section 5.2 or otherwise under this Agreement.

16.2 Specific Performance. Under no circumstances shall Purchaser be entitled to specific performance in the event of a breach or nonperformance of this Agreement by Seller.

## 17. CLOSING

17.1 Seller's Deliveries. At Closing, Seller will deliver the following documents or instruments and/or take the following actions:

(i) a Bill of Sale substantially in the form of Exhibit 17.1(i), transferring ownership of Seller's interest in and to the Personal Property;

(ii) a Bill of Sale substantially in the form of Exhibit 17.1(ii) transferring ownership of Seller's interest in and to the Inventory;

(iii) a deed or deeds substantially in the form of Exhibit 17.1(iii), transferring ownership of the Real Property;

(iv) an Assignment of Contracts, if any, substantially in the form of Exhibit 17.1(iv) assigning the Contracts;

(v) an Assignment of Leases, if any, substantially in the form of Exhibit 17.1(v) assigning the leased Real Property;

(vi) certified copy of a resolution of Seller's Board of Managers authorizing the transactions contemplated hereunder with a certificate of incumbency and specimen signature of each officer or individual executing this Agreement, or any other documents on behalf of Seller;

(vii) a certification by Seller substantially in the form of Exhibit 17.1(vii), verified as true and signed and sworn to under penalties of perjury by a duly authorized officer of Seller; if Seller does not so deliver such certification, then Purchaser shall, pursuant to Section 1445 of the Code, deduct and withhold ten percent (10%) from the Purchase Price identified at Section 4.1 or such lesser amount as may be specified in a withholding certificate issued by the Internal Revenue Service ("IRS") to Seller or Purchaser pursuant to Treasury Regulation Section 1.1445-3 of the Income Tax Regulations and, if obtained by Seller, delivered to Purchaser at the Closing; if Purchaser is required to, and does not, withhold such amount, Purchaser shall pay such amount to the IRS in accordance with Section 1445 of the Code and Treasury Regulation Section 1.1445-1;

(viii) deliver to Purchaser physical possession of the Assets to be sold to Purchaser hereunder;

(ix) an IRS Form 8594 substantially in the form of Exhibit 17.1(ix); and

(x) such other documents or instruments as may be reasonably necessary to carry out the transactions contemplated by this Agreement.

17.2 Purchaser's Deliveries. At Closing, Purchaser will deliver the following documents or instruments and or take the following actions:



(i) execute and deliver to, and where necessary, acknowledge, witness and attest, original counterpart copies of the documents identified at Section 17.1 above;

(ii) certified copies of a resolution of Purchaser's Board of Directors authorizing the transactions contemplated hereunder with a certificate of incumbency and specimen signatures of each officer or individual executing this Agreement or any other documents on behalf of Purchaser;

(iii) make the payments required in Article 4;

(iv) resale certificates for sales and use taxes for the State of Ohio;

(v) such other documents or instruments as may be reasonably necessary to carry out the transactions contemplated by this Agreement.

## 18. LICENSES AND PERMITS

18.1 Permit Transfers. Purchaser shall be responsible for and shall bear the expense of obtaining all new or transferred licenses or permits necessary or appropriate to continue the business as conducted prior to the Closing Date with regard to the Assets; provided the Seller will use reasonable efforts to assist Purchaser in obtaining such licenses and permits. By not later than 6:00 p.m. on the Closing Date, Purchaser shall have prepared and submitted all notices, amendments and transfer documents required by applicable Environmental Laws, and provided copies thereof to Seller.

## 19. EXPENSES AND BROKERS

19.1 Brokers. Each of the parties represents and warrants that it has dealt with no broker or finder in connection with any of the transactions contemplated by this Agreement, and, insofar as it knows, no broker or other person is entitled to any commission or finder's fee in connection with any of these transactions. Seller and Purchaser each, as a separate indemnifying party, agree to indemnify and hold harmless one another against any loss, liability, damage, cost, claim, or expense incurred by reason of any brokerage, commission, or finder's fee alleged to be payable because of any act, omission, or statement of the indemnifying party.

19.2 Expenses. Except as herein otherwise specified and whether or not this transaction is consummated, each of the parties shall pay all its own costs and expenses (including, without limitation, legal expenses) incurred by it in negotiation and preparing this Agreement and Closing and carrying out the transactions contemplated by this Agreement. Purchaser shall pay the filing fee required under the HSR Act, if any.

## 20. TERMINATION

20.1 Termination. This Agreement may be terminated:

(a) At any time prior to the Closing Date with the mutual consent of Seller and Purchaser; or

(b) By Seller, if any condition, obligation or covenant applicable to Purchaser herein shall not have been satisfied, complied with or performed on or before, as applicable, the Closing Date, and Seller shall not have waived in writing such nonsatisfaction, noncompliance

or nonperformance on or before the Closing Date, and further such nonsatisfaction, noncompliance or nonperformance shall have a material adverse effect on the transaction herein as a whole; and provided further that the failure of such condition did not result from the failure of Seller to perform any of its conditions, obligations or covenants that are required to be performed under this Agreement on or prior to Closing; or

(c) By Purchaser, if any condition, obligation or covenant applicable to Seller shall not have been satisfied, complied with or performed on or before, as applicable, the Closing Date, and Purchaser shall not have waived in writing such nonsatisfaction, noncompliance or nonperformance on or before the Closing Date, and further such nonsatisfaction, noncompliance or nonperformance shall have a material adverse effect on the transaction herein as a whole; and provided further that the failure of such condition did not result from the failure of Purchaser to perform any of its conditions, obligations or covenants that are required to be performed under this Agreement on or prior to Closing.

(d) By either Seller or Purchaser, if any governmental authority of competent jurisdiction has instituted any action or proceeding seeking to enjoin, restrain, or prohibit the transactions contemplated hereby, which action or proceeding shall not have been withdrawn or terminated; or

(e) By either Seller or Purchaser, if any governmental authority (including a federal or state court) of competent jurisdiction shall have enacted, issued, promulgated, enforced or entered any statute, rule, regulation, executive order, decree, or other (whether temporary, preliminary or permanent) which is in effect and which prohibits the consummation of the transactions contemplated by this Agreement; or

(f) By either Seller or Purchaser, if there shall be a request for additional information, whether voluntary or mandatory, issued pursuant to the HSR Act, or any similar action, request or proceeding from any other governmental authority; or

(g) By either Seller or Purchaser (so long as the party exercising termination rights under this Section 20.1(g) has substantially complied with, and is not in default of, any of its material conditions, obligations or covenants under this Agreement), if Closing is delayed beyond December 12, 2001.

All terminations hereunder must be a written notice delivered in accordance with Section 21.1.

## 20.2 Consequences of Termination.

(a) Except with respect to a party's termination under Section 20.1 due to the other party's failure to perform its obligations, covenants or to meet conditions hereunder, no party will be otherwise liable for damages to the other party as a result of termination pursuant to this Article 20, and Seller will return the Earnest Money Deposit to Purchaser promptly after termination. In the event of termination of this Agreement, each party shall return to the provider all documents and papers furnished to it in the course of the negotiation or carrying out of this Agreement and each party shall treat as proprietary and confidential any and all information obtained from any other party in accordance with the Confidentiality Agreement.

(b) In the event this Agreement is terminated by Seller pursuant to Section 20.1 due to Purchaser's failure to perform its obligations or covenants or to meet

conditions hereunder, Seller shall be entitled to damages from Purchaser in the minimum amount of the Earnest Money Deposit, which amount the parties agree represents a reasonable estimate of the minimum amount by which Seller will actually be damaged by such default. Subject to any limitations set forth elsewhere in this Agreement, nothing in this Section 20.2(b) shall preclude Seller from recovering damages in excess of the Earnest Money Deposit in the event that Seller is able to establish that it has suffered damages and losses in excess of the amount of the Earnest Money Deposit. The provisions of this Section 20.2 shall survive termination of this Agreement.

## 21. MISCELLANEOUS

21.1 Notices. All notices required under this Agreement shall be in writing and, if to Seller, shall be sufficient in all respects if delivered in person or commercial messenger service or sent by certified mail, return receipt requested, or by telecopy or other facsimile to:

Speedway SuperAmerica LLC  
500 Speedway Drive  
Enon, Ohio 45323  
Attention: Manager, Business Development  
If by facsimile: (937) 863-6712

with a copy to:

Speedway SuperAmerica LLC  
500 Speedway Drive  
Enon, Ohio 45323  
Attention: General Counsel  
If by facsimile: (937) 863-6727

and, if to Purchaser, shall be sufficient in all respects if delivered in person or commercial messenger service or sent by certified mail, return receipt requested, or by telecopy or other facsimile to:

Schafer Investments, Ltd.  
P. O. Box 13  
9109 SR 66  
Fort Loramie, Ohio 48845-0013  
Attention: Frank Schafer  
If by facsimile: (937) 295-3768

Any notice, request or communication hereunder shall be deemed to have been given on the day on which it is delivered by hand or by commercial messenger service to such party at its address specified above, or, if sent by mail, on the third business day after the day deposited in the mail, postage prepaid, or in the case of telex or facsimile notice, when sent with answerback received or other evidence of transmission.

Any party may change the address to which notices are to be sent to it by giving notice of such change of address to the other parties in the manner herein provided for giving notices.

21.2 Governing Law and Disputes. This Agreement shall be governed by, and construed in accordance with, the laws of the State of Ohio, except for the conflicts of laws

provisions thereof, and both parties consent to the exclusive jurisdiction of the Federal courts in the Southern District of Ohio and of the courts of the State of Ohio located in Clark County.

21.3 Assignment. Neither party hereto may assign or otherwise transfer or alienate any of the rights and/or obligations hereunder without the prior written consent of the other party hereto, and any such attempted assignment, transfer or alienation without such consent shall not relieve such party of any such obligation.

21.4 Beneficiaries. This Agreement, and all documents and instruments delivered pursuant hereto, shall be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns.

21.5 Headings. The descriptive headings in the Agreement are inserted for convenience only and do not control or affect the meaning, construction or interpretation of or constitute a part of this Agreement.

21.6 Entire Agreement. This writing is intended by the parties as the final, complete and exclusive statement of the terms and conditions of their agreement and is intended to supersede all previous agreements and understandings between the parties relating to its subject matter. No prior stipulation, agreement, understanding or course of dealing between the parties or their agents with respect to the subject matter of this Agreement shall be valid or enforceable unless embodied in the Agreement. No amendment, modification or waiver of any provision of this Agreement shall be valid or enforceable unless in writing and signed by the Purchaser and Seller.

21.7 Severability. If any provision of this Agreement is held to be illegal, unenforceable or invalid, such provision(s) shall be severed and the remaining provisions of this Agreement, shall not be affected thereby and shall remain in full force and effect.

21.8 Waiver. The failure of either party hereto in any one or more instances to insist upon the performance of any of the terms or conditions of this Agreement shall not be construed as a waiver of such party's rights with respect to any continuing or subsequent breach of those or any other terms or conditions, and the same shall remain in full force and effect.

21.9 Further Assurances. Subject to the terms of this Agreement, and in addition to other provisions herein, from time to time subsequent to the execution hereof, including following the Closing, each party shall use reasonable efforts to execute and deliver at the request of the other party such additional documents as may be reasonably be required to carry out the intent of this Agreement and the transactions contemplated hereby.

21.10 Announcements. The parties shall consult with each other with regard to all press releases or other announcements issued concerning this Agreement or the transactions contemplated hereby. Except as may be required by applicable laws, rules or regulations, neither party shall issue any press releases or other announcement without the prior written consent of the other party.

21.11 Exhibits. All references to Exhibits herein are to the exhibits attached hereto which are incorporated by reference into this Agreement.

21.12 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original instrument, but all of which together shall constitute one and the same Agreement.

21.13 Bulk Sales Law. Purchaser waives compliance by Seller with the provisions of any bulk sales law of any jurisdiction in connection with the transactions contemplated hereby.

21.14 Internal Revenue Code 1031 Exchanges. Purchaser and Seller acknowledge and agree that either of them may engage in a deferred exchange of like-kind property utilizing a qualified intermediary pursuant to Section 1031 of the Code. Notwithstanding any provision herein to the contrary, in the event either party elects to engage in a deferred like-kind exchange, the other party agrees to consent to the assignment of such party's rights under this Agreement to a qualified intermediary in order to facilitate the deferred like-kind exchange. The parties agree to execute any and all documents necessary to consummate the purposes of this section. Any actions taken by Purchaser and Seller in conformance with this section shall be at the cost of the party electing such exchange, and such documents shall not relieve the electing party of any of its obligations or liabilities under this Agreement.

21.15 Interest. Any amounts due and payable by one party to the other under the terms of this Agreement or otherwise arising out of the acts or omissions of the Parties or their agents relative to transaction contemplated by this Agreement (including, without limitation, amounts due based on claims for damages, losses and indemnification) shall bear daily interest at the simple interest rate of fifteen percent (15%) per annum if such amounts are not paid on or before the date when due.

21.16 Agreement Survival. This Agreement, any amendment hereto and any unfulfilled obligations of the parties hereunder shall survive the Closing.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the day and year first above written.

**SPEEDWAY SUPERAMERICA LLC**

By: 

Title: VP Operations

**SCHAFER INVESTMENTS, LTD.**

By: 

Title: President

EXHIBIT 1.1(d)

CONTRACTS

NONE

**EXHIBIT 1.1(i)**

**EXCLUDED ASSETS**

1. All computer systems related to the Radiant or Oasis point of sale systems. All proprietary back office systems.
2. All satellite communication equipment.
3. All Omni and Telxon communication equipment.
4. The Seller's trademarks, trade names, service marks and any indicia thereof.

## **EXHIBIT 1.1(I)**

### **INVENTORY PRICE**

#### **I. DEFINITIONS**

Capitalized terms used, but not defined, shall have the meaning assigned to such terms in the Purchase and Sale Agreement unless otherwise stated in this Exhibit.

#### **II. MEASUREMENT OF INVENTORY AND CASH ON HAND**

The purpose of the procedure(s) (the "Procedure(s)") set forth herein is to account for all inventory and cash on hand associated with the Real Property. However, if for any reason the Procedure(s) do not account for any portion of the Inventory (the "Unaccounted Inventory"), then the Purchaser's and Seller's representatives shall in good faith attempt to agree upon supplemental procedures to account for the Unaccounted Inventory.

In the event of any mathematical or other error(s), the parties shall utilize the post-closing adjustment procedures set forth in Section 4.4 of the Agreement.

#### **III. PHYSICAL INVENTORY**

At a mutually agreeable time as near the Effective Time as practicable, each store shall be closed to customers and suppliers, and the Seller and Purchaser will jointly conduct a physical inventory of Inventory at each store.

The physical inventory shall be continuously counted to completion. Seller or Purchaser may use an independent third party service as its representative with respect to such physical inventory and each shall bear their own cost in connection therewith. Immediately after completion and the review and approval in good faith by the parties of the results of the physical inventory for each store (which review and approval by Purchaser is not to be unreasonably withheld or delayed so as to delay the Closing), the respective store shall reopen its doors to customers and suppliers, if during normal business hours.

Seller agrees to leave a petty cash fund (no checks or charge card tickets) on hand at each store in the amount of [REDACTED] which shall be for the account of Purchaser.

Upon completion of the store audit, cash deposits relating to the audited locations will be directed to the account for Purchaser.

#### **IV. CALCULATION OF INVENTORY AMOUNT**

Seller and Purchaser shall jointly calculate the Inventory Price as follows:

- (1) For the volume of motor fuel at each store, multiply the gallons, net of water, of each grade and type of product by the per gallon price for each type of product to be determined based upon the average of the Marathon Ashland Petroleum LLC, or if such price is not available, the price from Seller's suppliers, unbranded rack price, per gallon (by grade of product) in effect at the primary product terminal supplying the applicable store for the period of



two (2) days prior to the Closing Date, the Closing Date and two (2) days after the Closing Date plus (i) Seller's actual common carrier charges applicable to the delivery of such motor fuel from the applicable terminal to the respective store; (ii) the applicable state, federal and local motor fuel taxes then in effect for each gallon and paid by Seller or for which Seller is obligated to pay, and (iii) all other applicable fees imposed by any state, federal or local law or ordinance, if any, paid by Seller or for which Seller is obligated to pay.

(2) For fast food and all other deli food, ice, carbon dioxide tanks and drink items at the stores used for preparing food or drink products on the premises (as opposed to prepackaged food and drink products), and all supplies used in the food operations such as condiments, cups and napkins, deduct from the physical count all spoiled or damaged items or any items not suitable for resale, but include all opened items suitable for resale or use; then multiply the remainder by Seller's actual cost.

(3) For cigarettes, deduct from the physical count all damaged or spoiled merchandise and items not suitable for resale, then multiply the remainder by Seller's actual cost, including any previously paid taxes.

(4) All general merchandise will be counted at the posted price. This means if an item is on sale, count it at the sale price. Take the physical count, less all damaged or spoiled merchandise and items not suitable for resale, then multiply the remainder by seventy percent (70%) of Seller's posted retail price for the Closing Date.

(5) Count all beer and wine at the current posted selling price and in the natural selling sizes. Take the physical count, less all damaged or spoiled items not suitable for resale, then multiply the remainder by the Seller's latest available Weighted Moving Average Cost percentage for beer and wine.

(6) For supplies and forms used in operation of the Real Property, such as paper towels, cleaning supplies, etc., deduct from the physical count all damaged items not suitable for use, but include any opened items, and then multiply the remainder by Seller's actual cost.

(7) Prepackaged soft drinks will be counted in a manner consistent with the method used by the store to receive them into inventory. For example, if a case of cans is received as 24 @ \$.69, then count them accordingly. All other soft drinks, with the exception of multi-packs, will be counted at the posted retail price. Deduct from the physical count all spoiled or damaged items not suitable for resale, then multiply the remainder by the Seller's latest available weighted moving average cost percentage for soft drinks.

(8) For container deposits, all applicable items should be counted at the deposit value, which is the amount that is charged by the vendor. Examples are refundable bottles/cans, crates or shells, and occasionally returnable milk jugs.

(9) The Seller will return all its lottery tickets to the respective state authority and close out its lottery account for the Real Property prior to the Effective Time.

The sum of the foregoing items (1) through (9) shall be the Inventory Price.

**EXHIBIT 1.1(q)**

**REAL PROPERTY BY SITE**

- |    |   |   |
|----|---|---|
| 1. | SSA Unit #1002<br>North Main & Third Street<br>Marysville, OH<br>Union County | For legal description see Exhibit 1.1(q)-page 2 |
| 2. | SSA Unit #1008<br>Selma Road & York Street<br>Springfield, OH<br>Clark County | For legal description see Exhibit 1.1(q)-page 3 |
| 3. | SSA Unit #1030<br>801 W. Main Street<br>Troy, OH<br>Miami County              | For legal description see Exhibit 1.1(q)-page 4 |
| 4. | SSA Unit #1060<br>226 W. Water Street<br>Piqua, OH<br>Miami County            | For legal description see Exhibit 1.1(q)-page 5 |
| 5. | SSA Unit #8555<br>S. Washington & 1st<br>New Bremen, OH<br>Auglaize County    | For legal description see Exhibit 1.1(q)-page 6 |
| 6. | SSA Unit #5465<br>500 W. Main Street<br>New Lebanon, OH<br>Montgomery County  | For legal description see Exhibit 1.1(q)-page 7 |
| 7. | SSA Unit #6329<br>S. Main & Tate Street<br>Englewood, OH<br>Montgomery County | For legal description see Exhibit 1.1(q)-page 8 |

**EXHIBIT 1.1(q)**

SSA Unit #1002  
North Main & Third Street  
Marysville, OH  
Union County

The following REAL ESTATE situated in the County of Union in the State of Ohio, and in the Village of Marysville and bounded and described as follows:

BEING all that part of Out Lot No. 2 north of Marysville lying south of the T. & O. C. Railroad.

BEGINNING at the S. W. corner of said Out Lot No. 2 north of Marysville; thence easterly on the South line of said Out Lot No. 2 to the point where said south line intersects the south line of the right of way; thence westerly to the point where it intersects the east line of Main Street; thence southerly with the east line of Main Street to the beginning.

CONTAINING 35/100 of an acre, more or less.

For further description of said lot see Vol. 6, Page 150 of the Court Records of the Common Pleas Court of Union County, Ohio.

Less and except the following described tract:

Being part of Out-Lot No. 2 of the Village of Marysville, Union County, Ohio lying south of the T. & O. C. Railroad, bounded and described as follows:

Commencing at an iron pin at the intersection of the south line of the right of way of said railroad and the south line of Lot No. 2; thence north 84° west 165 feet; thence in a northerly direction to a point in the south line of said railroad right of way, (said point being north 62° 55' 27" west 165 feet from the point of beginning); thence south 62° 55' 27" east 165 feet to the point of beginning.

**EXHIBIT 1.1(q)**

SSA Unit #1008  
Selma Road & York Street  
Springfield, OH  
Clark County

Situated in the City of Springfield, Count of Clark and State of Ohio, to-wit:

Being part of the southwest quarter of Section 28, Township 5, Range 9, M.R.S.

Beginning at a point in the west line of East Street, said point being N. 39° 35' E. 150 feet from the intersection of the west line of East Street with the north line of Selma Road; thence N. 57° 05' W. 125 feet; thence S. 39° 35' W. 150 feet to a point in the north line of Selma Road; thence with said north line S. 57° 05' E. 80.5 feet to a point of curvature; thence on a curve to the left, the radius of which is 50 feet, 72.7 feet to the point of tangency of said curve with the west line of East Street; thence with the west line of East Street N. 39° 35' E. 105.5 feet to the place of beginning, containing 0.42 of an acre.

**EXHIBIT 1.1(q)**

SSA Unit #1030  
801 W. Main Street  
Troy, OH  
Miami County

Situate in the city of Troy, County of Miami, and State of Ohio, and described as follows:

**TRACT I**

Being the south part of Inlot 248 in said City more particularly described as follows: Beginning at an iron pin which marks the southeast corner on Inlot 248, same being a point on the north line of West Main Street; thence North 49 degrees 33 minutes 00 seconds East, with the West line of Inlot 248, 50.00 feet to an iron pin; thence North 40 degrees 33 minutes 00 seconds East, crossing Inlot 248, 50.00 feet to an iron pin; thence South 40 degrees 14 minutes 00 seconds West, with the East line of Inlot 248, 83.29 feet to the place of beginning, containing 4164.5 square feet of Inlot 248.

In accordance with a survey of Richard W. Klockner, Professional Surveyor as recorded in Plat No. 196, Vol. 12, Miami County Engineer's Record of Lot Surveys.

**TRACT II**

All that part of Inlot No. 249 in the city of Troy, Miami County, Ohio, more fully described as follows: Beginning at the southeast corner of said Inlot No. 249, being the intersection of the west line of Elm Street with the northerly line of Main Street; running thence north 10 degrees 50 minutes 00 seconds east 95.80 feet along with the west line of Elm Street to a cross mark in concrete wall; running thence north 49 degrees 33 minutes 00 seconds west parallel with the northerly line of Main Street 55.65 feet to an iron pin; running thence south 40 degrees 14 minutes 00 seconds west 83.29 feet to an iron pin on the northerly side of Main Street; running thence south 49 degrees 33 minutes 00 seconds east 102.68 feet to point of beginning.

Subject, however, to all legal highways, all rights of way, easements, reservations, restrictions and easements of record, to any existing tenancies, and to any state of facts an accurate survey would show.

**EXHIBIT 1.1(q)**

SSA Unit #1060  
226 W. Water Street  
Piqua, OH  
Miami County

Situate in the city of Piqua, Ohio.

Being a part of Lot No. 95 and bounded and described as follows: Beginning at a cut in the concrete walk located at the Southwest corner of Lot No. 95, which point is also the intersection of the North right-of-way line of Water Street and the East right-of-way line of Downing Street; thence in a Northerly direction with the East right-of-way line of Downing Street and the West line of Lot No. 95 a distance of 109.40 feet to an iron pin; thence with an interior angle of 89 degrees 44 minutes 0 seconds a distance of 101.86 feet to a out in a stone; thence in a Southerly direction with an interior angle of 90 degrees 31 minutes 00 seconds a distance of 109.40 feet to an iron pin on the North right-of-way line of Water Street; thence, in a Westerly direction with an interior angle of 89 degrees 29 minutes 00 seconds and with the North right-of-way line of Water Street and the South line of Lot No. 95 a distance of 102.34 feet tot he point of beginning.

**EXHIBIT 1.1(q)**

SSA Unit #8555  
S. Washington & 1st  
New Bremen, OH  
Auglaize County

Situated in the Village of New Bremen, County of Auglaize, State of Ohio and being the north part of Inlot No. 346 in the Koops and Boshes East Addition, a tract of land bounded and described as follows:

Beginning at a ½" Rebar set on the Easterly right-of-way line of Washington Street (S.R. #66) and described as lying North 06° 23' 00" West, a distance of 68.50 feet from the southwest corner of Inlot #346;

Thence from the above described point of beginning North 83° 52' 53" East, a distance of 124.93 feet on an iron pin found set on the westerly right-of-way line of a 16.5 feet alley;

Thence along said westerly right-of-way line, North 06° 43' 08" West, a distance of 92.72 feet to a P.K. nail set on the southerly right-of-way line of East Monroe Street (S.R. #274);

Thence along the southerly right-of-way line of said East Monroe Street, South 83° 15' 42" West, a distance of 85.60 feet to a P.K. nail set;

Thence continuing along said southerly right-of-way line of East Monroe Street, South 67° 36' 51" West, a distance of 22.66 feet to a railroad spike set;

Thence South 01° 32' 36" West, a distance of 36.26 feet to a ½" Rebar set;

Thence South 81° 28' 02" West, a distance of 12.01 feet to a ½" Rebar set on the easterly right-of-way line of Washington Street (66' R/W);

Thence along said easterly right-of-way line South 06° 23' 00" East, a distance of 49.00 feet to the point of beginning and containing 0.247 acres of land, more or less, subject however to all legal highways and prior easements of record.

**EXHIBIT 1.1(q)**

SSA Unit #5465  
500 W. Main St.  
New Lebanon, OH  
Montgomery County

The following described real estate in the village of New Lebanon, County of Montgomery, and State of Ohio, to-wit:

A parcel of land located in Section 2, Town 4, Range 4 East, more particularly described as follows: BEGINNING at the intersection of the centerlines of Clayton Road and West Main Street (U.S. Route 35); thence North 89 degrees 56 minutes 00 seconds East, along the centerline of West Main Street a distance of 180.000 feet to a point, witness an iron pin South 1 degree 00 minutes 00 seconds East, a distance of 40.00 feet; thence South 1 degree 00 minutes 00 seconds East, a distance of 190.00 feet to an iron pin; thence South 89 degrees 56 minutes 00 seconds East, a distance of 30.00 feet; thence North 1 degree 00 minutes 00 seconds West, along the centerline of Clayton Road, a distance of 190.00 feet to the place of BEGINNING, as surveyed by James C. McGraw, Registered Surveyor, on August 22, 1969.

BEING the same premises which became vested in Mobil Oil Corporation, a New York Corporation by deed of Thomas B. Talbot and Eleanor V. Talbot, husband and wife, and recorded in the office of Recorder, Montgomery County, Ohio, On December 7, 1970 in Book 2534, Pages 237 and 238.

EXCEPTING THEREFROM the following described premises conveyed by deed from Mobil Oil Corporation to Village of New Lebanon:

Situated in the Village of New Lebanon, County of Montgomery, State of Ohio and located in Section 2, Town 4, Range 4 East, and more particularly described as follows: BEGINNING at the intersection of the centerlines of Clayton Road and West Main Street (U.S. Route 35); thence North 89 degrees 56 minutes 00 seconds East along the centerlines of West Main Street a distance of 40 feet to a point; thence South 1 degree 00 minutes 00 seconds East a distance of 40 feet to a point, being the true place of beginning; thence South 17 degrees 32 minutes 00 seconds West a distance of 31.47 feet to a point on the existing Right of Way line paralleling Clayton Road, thence North 1 degree 00 minutes 00 seconds West a distance of 30 feet to a point; thence North 89 degrees 56 minutes 00 seconds East a distance of 10 feet prior to the true place of beginning.

PRIOR INSTRUMENT REFERENCE 84-0087 C12



**EXHIBIT 1.1(q)**

SSA Unit #6329  
S. Main & Tate Street  
Englewood, OH  
Montgomery County

Situate in the City of Englewood, County of Montgomery and State of Ohio, and being Lots Numbered THREE (3) and FOUR (4) on the plat made by Levi A. Albert, as Administrator de bonis non with the Will annexed of the Estate of Daniel Wolf, deceased, and being a subdivision of 19.42 acres in Section 22, Town 5, Range .5 East, as recorded in Plat Book "N", Page 62 of the Plat Records and abstract A-169, Montgomery County, Ohio Records.

Subject to restrictions of record.

EXHIBIT 4.6

PRICE ALLOCATIONS

Store Number	City	State	Price Allocation
#1002	Marysville	Ohio	\$[REDACTED]
#1008	Springfield	Ohio	\$[REDACTED]
#1030	Troy	Ohio	\$[REDACTED]
#1060	Piqua	Ohio	\$[REDACTED]
#8555	New Bremen	Ohio	\$[REDACTED]
#5465	New Lebanon	Ohio	\$[REDACTED]
#6329	Englewood	Ohio	\$[REDACTED]
Total			\$[REDACTED]

**EXHIBIT 9.4**

**SELLER'S LITIGATION**

NONE

**EXHIBIT 9.5**

**LICENSES AND PERMITS**

NONE

EXHIBIT 9.6

LEASES OF REAL PROPERTY

NONE

**EXHIBIT 9.7**

**KNOWN RELEASES**

(Identified by Incident Number and/or Reported Release Date)

<b><u>STORE #</u></b>	<b><u>FACILITY ID#</u></b>	<b><u>INCIDENT NUMBER</u></b>	<b><u>RELEASE DATE</u></b>
8555	06000062	0621409-03	4/16/98

EXHIBIT 17.1(i)

**BILL OF SALE**  
**(PERSONAL PROPERTY)**

THIS BILL OF SALE, made as of the \_\_\_\_\_ day of \_\_\_\_\_, 2001, by and between **Speedway SuperAmerica LLC**, a Delaware limited liability company, having its principal office at 500 Speedway Drive, Enon, Ohio 45323 ("Seller"), and **Schafer Investments, Ltd.**, an Ohio limited liability company with mailing address of P. O. Box 13, 9109 SR 66, Fort Loramie, Ohio 48845-0013 ("Purchaser").

WITNESSETH:

1. Seller, for and in consideration of [REDACTED] and other good and valuable consideration hereby sells, assigns, conveys and delivers to Purchaser, its successors and assigns, the property described at Exhibit A attached (the "Personal Property").

2. This Bill of Sale is being entered into pursuant to a Purchase and Sale Agreement dated \_\_\_\_\_, 2001 (the "Agreement") between Seller and Purchaser. Unless otherwise specified, capitalized terms used herein have the meaning set forth in the Agreement. This conveyance is subject to the terms and conditions contained within the Agreement.

3. Purchaser acknowledges by executing this Bill of Sale that it has made its own investigation as to the nature and extent and has inspected the physical condition of the Personal Property.

4. Seller has free and clear title to the Personal Property. The Personal Property is not subject to any mortgage, pledge, lien (including tax liens), charge, security interest, encumbrance or restriction, lease, liability or claim of any nature whatsoever. Except as otherwise provided in the Agreement, THE SALE OF THE ASSETS IS MADE BY SELLER WITHOUT REPRESENTATION OR WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, AS TO THE CONDITION OF THE ASSETS (INCLUDING, WITHOUT LIMITATION, THE SOIL, WATER, GEOLOGY OR ENVIRONMENTAL CONDITION OF THE ASSETS), THEIR MERCHANTABILITY, WHETHER THE ASSETS ARE FREE OF PETROLEUM, PETROLEUM RESIDUE OR HAZARDOUS SUBSTANCES, OR THEIR FITNESS FOR PURCHASER'S INTENDED USE. THE ASSETS ARE SOLD ON AN AS-IS, WHERE-IS BASIS, AND BY ITS ACCEPTANCE OF THE ASSETS, PURCHASER EXPRESSLY RELIEVES AND EXONERATES SELLER OF ANY RESPONSIBILITY FOR THEIR PHYSICAL CONDITION, MERCHANTABILITY OR FITNESS FOR ANY PURPOSE. SELLER'S WARRANTIES AND GUARANTEES SET FORTH HEREIN ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES AND GUARANTEES OF ANY KIND (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURCHASER'S INTENDED USE), WHETHER WRITTEN OR ORAL OR IMPLIED IN FACT OR IN LAW. PURCHASER HEREBY ACKNOWLEDGES THAT SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY OR COMPLETENESS OF ANY SURVEY, TITLE ABSTRACTS, TITLE EXAMINATIONS OR REPORTS, STRUCTURAL OR ENVIRONMENTAL SURVEYS OR REPORTS, OR WITH RESPECT TO ANY DESCRIPTION OF THE PROPERTY CONTAINED IN ANY CATALOG, BOOKLET OR SALES LITERATURE OR OTHER DATA OR INFORMATION RECEIVED DIRECTLY OR INDIRECTLY FROM SELLER PRIOR TO EXECUTION OF THIS AGREEMENT.

5. Purchaser hereby covenants and agrees to protect, defend and indemnify and hold harmless Seller in accordance with Article 15 of the Agreement.

IN WITNESS WHEREOF, Purchaser and Seller have executed this Bill of Sale as of the date first written above.

WITNESSES:

\_\_\_\_\_  
\_\_\_\_\_

WITNESSES:

\_\_\_\_\_  
\_\_\_\_\_

Seller:

**Speedway SuperAmerica LLC**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Purchaser:

**Schafer Investments, Ltd.**

By: \_\_\_\_\_

Title: \_\_\_\_\_



EXHIBIT 17.1(ii)

**BILL OF SALE**  
**(INVENTORY)**

THIS BILL OF SALE, made as of the \_\_\_\_\_ day of \_\_\_\_\_, 2001, by and between **Speedway SuperAmerica LLC**, a Delaware limited liability company, having its principal office at 500 Speedway Drive, Enon, Ohio 45323 ("Seller"), and **Schafer Investments, Ltd.**, an Ohio limited liability company with mailing address of P. O. Box 13, 9109 SR 66, Fort Loramie, Ohio 48845-0013 ("Purchaser").

WITNESSETH:

1. Seller, for and in consideration of [REDACTED] and other good and valuable consideration hereby sells, assigns, conveys and delivers to Purchaser, its successors and assigns, the Inventory.

2. This Bill of Sale is being entered into pursuant to a Purchase and Sale Agreement dated \_\_\_\_\_, 2001, (the "Agreement"), between Seller and Purchaser. Unless otherwise specified, capitalized terms used herein have the meaning set forth in the Agreement. This conveyance is subject to the terms and conditions contained within the Agreement.

3. Purchaser acknowledges by executing this Bill of Sale that it has made its own investigation as to the nature and extent and has inspected the physical condition of the Inventory.

4. Seller has free and clear title to the Inventory. The Inventory is not subject to any mortgage, pledge, lien (including tax liens), charge, security interest, encumbrance or restriction, lease, liability or claim of any nature whatsoever. Except as otherwise provided in the Agreement, THE SALE OF THE ASSETS IS MADE BY SELLER WITHOUT REPRESENTATION OR WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, AS TO THE CONDITION OF THE ASSETS (INCLUDING, WITHOUT LIMITATION, THE SOIL, WATER, GEOLOGY OR ENVIRONMENTAL CONDITION OF THE ASSETS), THEIR MERCHANTABILITY, WHETHER THE ASSETS ARE FREE OF PETROLEUM, PETROLEUM RESIDUE OR HAZARDOUS SUBSTANCES, OR THEIR FITNESS FOR PURCHASER'S INTENDED USE. THE ASSETS ARE SOLD ON AN AS-IS, WHERE-IS BASIS, AND BY ITS ACCEPTANCE OF THE ASSETS, PURCHASER EXPRESSLY RELIEVES AND EXONERATES SELLER OF ANY RESPONSIBILITY FOR THEIR PHYSICAL CONDITION, MERCHANTABILITY OR FITNESS FOR ANY PURPOSE. SELLER'S WARRANTIES AND GUARANTEES SET FORTH HEREIN ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES AND GUARANTEES OF ANY KIND (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURCHASER'S INTENDED USE), WHETHER WRITTEN OR ORAL OR IMPLIED IN FACT OR IN LAW. PURCHASER HEREBY ACKNOWLEDGES THAT SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY OR COMPLETENESS OF ANY SURVEY, TITLE ABSTRACTS, TITLE EXAMINATIONS OR REPORTS, STRUCTURAL OR ENVIRONMENTAL SURVEYS OR REPORTS, OR WITH RESPECT TO ANY DESCRIPTION OF THE PROPERTY CONTAINED IN ANY CATALOG, BOOKLET OR SALES LITERATURE OR OTHER DATA OR INFORMATION RECEIVED DIRECTLY OR INDIRECTLY FROM SELLER PRIOR TO EXECUTION OF THIS AGREEMENT.

5. Purchaser hereby covenants and agrees to protect, defend and indemnify and hold harmless Seller in accordance with Article 15 of the Agreement.

IN WITNESS WHEREOF, Purchaser and Seller have executed this Bill of Sale as of the date first written above.

WITNESSES:

\_\_\_\_\_  
\_\_\_\_\_

WITNESSES:

\_\_\_\_\_  
\_\_\_\_\_

Seller:  
**Speedway SuperAmerica LLC**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Purchaser:  
**Schafer Investments, Ltd.**

By: \_\_\_\_\_

Title: \_\_\_\_\_

EXHIBIT 17.1(iii)

LIMITED WARRANTY DEED

THIS LIMITED WARRANTY DEED made and entered into as of the \_\_\_\_\_ day of \_\_\_\_\_, 2001, by and between **Speedway SuperAmerica LLC**, a Delaware limited liability company with a mailing address of 500 Speedway Drive, Enon, Ohio 45323 ("Grantor"), and **Schafer Investments, Ltd.**, an Ohio limited liability company with a mailing address of P. O. Box 13, 9109 SR 66, Fort Loramie, Ohio 48845-0013 ("Grantee").

WITNESSETH:

THAT, for and in consideration of the sum of [REDACTED] cash in hand paid, the receipt of all of which is hereby acknowledged, Grantor hereby grants, bargains, sells and conveys to Grantee, its heirs and assigns, forever, in fee simple, all the following tract or parcel of land situate in \_\_\_\_\_ County, \_\_\_\_\_, being more particularly described on Exhibit A attached (the "Property"). Being the same, or a part of the same property conveyed by \_\_\_\_\_ to \_\_\_\_\_ by deed dated \_\_\_\_\_, \_\_\_\_\_ and recorded in the office of the clerk of \_\_\_\_\_ County, \_\_\_\_\_ in \_\_\_\_\_, page \_\_\_\_\_.

TO HAVE AND TO HOLD the same premises, as herein described, with the appurtenances, unto the said Grantee, its heirs and assigns, forever.

This conveyance is made subject to (i) any state of facts that an accurate survey would show; (ii) restrictions, easements, rights of way, exceptions, reservations and conditions contained in prior instruments of record in the chain of title to the Property; (iii) legal highways, zoning and building laws, ordinances or regulations; (iv) any lien for taxes that are not yet due and payable; (v) rights of others to the banks, waters and flow of any river or body of water abutting the Property, if any; (vi) rights of lessees, if any, in possession of any portion of the Property; and (vii) minor encumbrances that do not prohibit the use of the Property as a motor fuel service station or convenience store.

To reduce risks to human health and/or the environment, and to permit application of corrective action standards which are consistent with the non-residential use (or other lower-risk use) of the Property, this conveyance is made by Grantor and accepted by Grantee upon the express condition and subject to the restrictions and covenants that: (i) the Property shall not be used or occupied (if used or occupied at all) for residential purposes or for purposes of a child care or elder care facility, a nursing home facility or hospice, a hotel or motel, a medical or dental facility, a school, a church, a park, or a hospital; (ii) any building constructed on the Property shall have a slab-on-grade foundation with the top of the slab at or above surface level; and (iii) no water supply wells of any kind (including without limitation water wells used for drinking, bathing or other human consumption purposes and water wells used for livestock, farming or irrigation) shall be installed or used on the Property (collectively, "Exposure Restriction"); provided, however, that the Exposure Restriction does not prohibit the installation or use of any compliance wells, or any groundwater monitoring, recovery or extraction wells or similar devices used for or related to the performance of assessments, remediation or any other corrective action on the Property now or in the future. Grantee hereby agrees to indemnify, defend and hold harmless the Grantor from and against any and all losses, damages, claims, suits or actions, judgments and costs (including reasonable attorney fees) that arise out of or relate to any use of the Property which is in violation of or inconsistent with the Exposure Restriction. The Exposure Restriction shall run with the Property and each portion thereof for the benefit of the Grantor and shall bind Grantee, its successors, assigns and all future owners of the Property, and their respective directors, officers, employees, contractors, agents, representatives, lessees, licensees, invitees, and any user or occupant of all or any portion of the Property.

Grantor will forever warrant the title to the said premises (except for the property quitclaimed by the immediately preceding paragraph) unto the Grantee, its successor and assigns, against Grantor's acts, but no others; provided, however, that any one claim or all claims and demands in the aggregate, pursuant to this warranty, shall in no event exceed the amount of consideration paid by Grantee to Grantor which the parties agree is \$\_\_\_\_\_.

The terms and provisions contained herein shall be binding upon and inure to the benefit of the parties hereto, their respective heirs, personal representatives, successors and assigns.

Signed and delivered in the presence of:

By: \_\_\_\_\_

Witness

Title: \_\_\_\_\_

Witness

STATE OF OHIO )  
 ) SS  
COUNTY OF )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2001 by \_\_\_\_\_, the \_\_\_\_\_ of Speedway SuperAmerica LLC, a Delaware limited liability company, on behalf of the company.

Notary Public (SEAL)

My commission expires: \_\_\_\_\_

This Deed Prepared By:

Ralph B. Williams  
Attorney at Law  
Speedway SuperAmerica LLC  
500 Speedway Drive  
Enon, Ohio 45323

EXHIBIT 17.1(iv)

**ASSIGNMENT OF CONTRACTS**

KNOW ALL MEN BY THESE PRESENTS that, for and in consideration of the sum of [REDACTED] and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, **Speedway SuperAmerica LLC**, a Delaware limited liability company, with offices at 500 Speedway Drive, Enon, Ohio 45323 ("Assignor"), does hereby grant, bargain, sell, transfer, assign and convey, without warranty of title, express or implied, unto **Schafer Investments, Ltd.**, an Ohio limited liability company with mailing address of P.O. Box 13, 9109 SR 66, Fort Loramie, Ohio 48855-0013 ("Assignee"), all its right, title and interest in and to the Contracts ("Contracts") described at Exhibit A attached.

The conveyance set forth under this instrument is pursuant to a certain Purchase and Sale Agreement dated \_\_\_\_\_, 2001 between Assignor and Assignee (the "Agreement"). Unless otherwise specified, capitalized terms used herein have the meaning set forth in the Agreement. This conveyance is subject to the terms and conditions contained within the Agreement.

By acceptance of this Agreement, Assignee covenants for itself, and its successors and assigns, that it will comply with and perform all the covenants, terms, conditions and provisions of each of the Contracts.

Assignee hereby waives any prior breaches, defaults, failures of performance or obligations under any of the Contracts occurring prior to this Assignment and hereby expressly waives any right to proceed against Assignor for said defaults, breaches, failures of performance or obligations.

From and after the date hereof, Assignee hereby assumes all right, title and interest of Assignor in and to the Contracts, agrees to be bound by all terms and conditions thereof, and agrees to indemnify Assignor in accordance with the terms of the Agreement.

Assignee hereby covenants and agrees to protect, defend and indemnify and hold harmless Assignor in accordance with Article 15 of the Agreement.

This Assignment shall be binding upon, and inure to the benefit of Assignor and Assignee, and their respective successors and assigns.

IN WITNESS WHEREOF, this Assignment is executed this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

WITNESSES:

\_\_\_\_\_  
\_\_\_\_\_

WITNESSES:

\_\_\_\_\_  
\_\_\_\_\_

Seller:  
**Speedway SuperAmerica LLC**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Purchaser:  
**Schafer Investments, Ltd.**

By: \_\_\_\_\_

Title: \_\_\_\_\_

EXHIBIT 17.1(v)

ASSIGNMENT OF LEASES

SSA Unit No.:

Location:

T&C:

ASSIGNMENT OF LEASEHOLD

Know All Men by These Presents: That **SPEEDWAY SUPERAMERICA LLC** (successor by merger to Emro Marketing Company), a Delaware limited liability company, "Assignor", in consideration of the sum of \_\_\_\_\_, the receipt of which is hereby acknowledged, and the covenants on the part of the Assignee herein contained and to be performed by it, does hereby sell, assign and transfer to **SCHAFER INVESTMENTS, LTD.** an Ohio limited liability company, "Assignee," its successors and assigns, all the right, title, and interest of the Assignor in and to Assignor's leasehold interest in the property described in Exhibit "A" attached hereto and by this reference incorporated herein.

Being the leasehold interest created in favor of Speedway SuperAmerica LLC (successor by merger to Emro Marketing Company) from \_\_\_\_\_ ("Landlord"), by instrument entitled \_\_\_\_\_, dated \_\_\_\_\_ ("Lease"). A Memorandum of Lease of said lease is recorded as Document # \_\_\_\_\_ in Volume \_\_\_\_\_, Page \_\_\_\_\_, \_\_\_\_\_ County, \_\_\_\_\_.

Together with all rights thereunder, and all the estate, title and interest of the Assignor therein.

To have and to hold the same for and during the residue of the term of the Lease, together with the right to exercise any option of renewal for an additional term in accordance with the terms of the Lease; subject, however, to all the conditions, covenants, agreements, terms and provisions contained in the original Lease, any amendments thereto, and in this Assignment.

In consideration of this Assignment, the Assignee hereby accepts the same and assumes and agrees to pay all rents due from and after the date hereof, and to keep and perform all the covenants, agreements, terms, provisions and conditions of the Lease, as amended, required of the Assignor.

This Assignment is subject to that certain Purchase and Sale Agreement dated \_\_\_\_\_, 2001 between Assignor and Assignee.

In Witness Whereof, the Assignor and Assignee herein have hereunto set their hands this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

**SPEEDWAY SUPERAMERICA LLC**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Witness

SCHAFFER INVESTMENTS, LTD.

Witness

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Witness

STATE OF OHIO )  
 ) SS.  
COUNTY OF \_\_\_\_\_ )

Before me, a Notary Public in and for said State of Ohio, personally appeared the above-named Speedway SuperAmerica LLC, a Delaware limited liability company, by \_\_\_\_\_, its \_\_\_\_\_, who acknowledged that he did sign the foregoing instrument and that the same is the free act and deed of said limited liability company, and the free act and deed of him personally and as such officer.

In Testimony Whereof, I have hereunto set my hand and official seal at Enon, Ohio this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

My Commission Expires: \_\_\_\_\_

Notary Public

STATE OF \_\_\_\_\_ )  
 ) SS.  
COUNTY OF \_\_\_\_\_ )

Before me, a Notary Public in and for said State of \_\_\_\_\_, personally appeared the above-named Schaffer Investments, Ltd., an Ohio limited liability company, by \_\_\_\_\_, its \_\_\_\_\_, who acknowledged that he did sign the foregoing instrument and that the same is the free act and deed of said limited liability company, and the free act and deed of him personally and as such officer.

In Testimony Whereof, I have hereunto set my hand and official seal at \_\_\_\_\_, this \_\_\_\_\_ day of \_\_\_\_\_, 2001.

My Commission Expires: \_\_\_\_\_

Notary Public

This Instrument Prepared By:  
Ralph B. Williams  
Attorney at Law  
Speedway SuperAmerica LLC  
500 Speedway Drive  
Enon, Ohio 45323

AFTER RECORDING MAIL TO:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

EXHIBIT 17.1(vii)

NONFOREIGN AFFIDAVIT

The Seller, being first, duly sworn, does hereby certify under penalties for purposes of compliance with the provisions of Section 1445(b)(2) of the Internal Revenue Code of 1986, as amended (the "Code"), as follows:

1. That the Seller's United States Taxpayer Identification Number (Social Security Number, if an individual) is as set forth below;
2. That the Seller is not a Foreign Person within the meaning of Section 1445 of the Code; and
3. If the Seller is other than an individual, that the person signing has been duly authorized by the Seller to execute this Affidavit on behalf of the Seller.

Taxpayer Identification No.

[REDACTED]

Name of Seller

Speedway SuperAmerica LLC

By: \_\_\_\_\_

STATE OF OHIO                    )  
  ) SS  
COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2001 by \_\_\_\_\_ the \_\_\_\_\_ of Speedway SuperAmerica LLC, on behalf of the company.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

[SEAL]



EXHIBIT 17.1(ix)

Form **8594**(Rev. July 1998)  
Department of the Treasury  
Internal Revenue Service**Asset Acquisition Statement  
Under Section 1060**

▶ Attach to your Federal income tax return.

OMB No. 1545-1021

Attachment  
Sequence No. 61

Name as shown on return

Identification number as shown on return

Check the box that identifies you:

☐ Buyer☐ Seller**Part I** General Information — To be completed by all filers.

1 Name of other party to the transaction

Other party's identification number

Address (number, street, and room or suite no.)

City or town, state, and ZIP code

2 Date of sale

3 Total sales price

**Part II** Assets Transferred — To be completed by all filers of an original statement.

4 Assets	Aggregate Fair Market Value (Actual Amount for Class I)	Allocation of Sales Price
Class I	\$	\$
Class II	\$	\$
Class III	\$	\$
Classes IV and V	\$	\$
Total	\$	\$

5 Did the buyer and seller provide for an allocation of the sales price in the sales contract or in another written document signed by both parties? ☐ Yes ☐ No  
 If "Yes," are the aggregate fair market values listed for each of asset Classes I, II, III, IV and V the amounts agreed upon in your sales contract or in a separate written document? ☐ Yes ☐ No

6 In connection with the purchase of the group of assets, did the buyer also purchase a license or a covenant not to compete, or enter into a lease agreement, employment contract, management contract, or similar arrangement with the seller (or managers, directors, owners, or employees of the seller)? ☐ Yes ☐ No  
 If "Yes," specify (a) the type of agreement, and (b) the maximum amount of consideration (not including interest) paid or to be paid under the agreement. See the instructions for line 6.

For Paperwork Reduction Act Notice, see instructions.

Form 8594 (Rev. 7-98)

ISA  
577FED02817.1

## Part III

7	Assets	Allocation of Sales Price as Previously Reported	Increase or (Decrease)	Redetermined Allocation of Sales Price
	Class I	\$	\$	\$
	Class II	\$	\$	\$
	Class III	\$	\$	\$
	Classes IV and V	\$	\$	\$
	Total	\$	\$	\$

8 Reason(s) for increase or decrease. Attach additional sheets if more space is needed.

9 Tax year and tax return form number with which the original Form 8594 and any supplemental statements were filed.

FIRST AMENDMENT TO  
PURCHASE AND SALE AGREEMENT

THIS FIRST AMENDMENT TO PURCHASE AND SALE AGREEMENT (hereinafter, "Amendment"), dated as of November 14, 2001 by and between Speedway SuperAmerica LLC, a Delaware limited liability company ("Seller"), and Schafer Investments, Ltd., an Ohio limited liability company ("Purchaser").

WITNESSETH

WHEREAS, Seller and Purchaser are parties to a Purchase and Sale Agreement dated as of October 22, 2001 (the "Agreement");

WHEREAS, the transactions contemplated in the Agreement include a total of seven (7) Sites in the State of Ohio; and

WHEREAS, the parties desire to amend and supplement certain portions of the Agreement.

NOW, THEREFORE, for good and valuable consideration, the parties agree as follows:

1. Definitions. Except as otherwise provided herein all capitalized terms will have the meaning set forth in the Agreement.
2. Amended Section 1.1(b). Section 1.1(b) of the Agreement is hereby amended and restated in its entirety as follows:

"(b) 'Closing' means the consummation of the transactions contemplated by this Agreement, other than disbursement of proceeds to Seller and recordation of deeds, which matters will occur subsequent to the Closing as provided in Section 17.3."
3. Amended Section 1.1(g). Section 1.1(g) of the Agreement is hereby amended and restated in its entirety as follows:

"(g) 'Effective Time' as to any particular Site shall mean 12:00:01 a.m. local time of the Site on the Effective Date for that Site."
4. Added Section 1.1(gg). Section 1.1(gg) is hereby supplemented into Section 1 of the Agreement as follows:

"(gg) 'Escrow Agent' means Lawyers Title Insurance Corporation/LandAmerica Financial Group."
5. Added Section 1.1(hh). Section 1.1(hh) is hereby supplemented into Section 1 of the Agreement as follows:

"(hh) 'Effective Date' as to any particular Site means the date on which inventory audits for that Site, conducted in accordance with Exhibit 1.1(l), are commenced. Provided that all actions described in Section 17 are

accomplished on or before the Closing Date, specifically including without limitation the delivery by Purchaser of the payments required in Article 4 and Article 6 and all other Closing costs to the Escrow Agent, the Inventory audits shall begin on the next business day after the Closing Date and shall occur over a one (1) day period."

6. Amended Section 2.1. Section 2.1 of the Agreement is hereby amended and restated in its entirety as follows:

"2.1 Closing. The Closing of the transactions contemplated hereunder shall take place on the Closing Date at 10:00 a.m. local time at the offices of the Escrow Agent, or such other time and place as the parties shall agree in writing. No later than five (5) days prior to the Closing Date, Seller and Purchaser shall enter into an escrow agreement with the Escrow Agent and shall execute such other documentation reasonably requested by Escrow Agent."

7. Amended Section 3.1. Section 3.1 of the Agreement is hereby amended and restated in its entirety as follows:

"3.1 Sale and Purchase. Seller agrees to sell, assign, convey, transfer and deliver or cause to be sold, assigned, conveyed, transferred or delivered to Purchaser, and Purchaser agrees to purchase, acquire and accept, the Assets on such terms as hereinafter specified. Transfer of possession of the Assets, recording of the deeds, and disbursement of proceeds for each Site shall occur on the Effective Date for each Site."

8. Amended Section 3.2. Section 3.2 of the Agreement is hereby amended and restated in its entirety as follows:

"3.2 Excluded Assets. Seller shall retain title to all of the Excluded Assets and any proceeds thereof, which shall be removed from each Site prior to 6:00 p.m. local time on the Effective Date for each respective site."

9. Amended Section 4.1. Section 4.1 of the Agreement is hereby amended and restated in its entirety as follows:

"4.1 Price. In consideration of the sale, transfer, conveyance, assignment and delivery of the Assets by Seller to Purchaser, Purchaser will pay to Seller the Purchase Price, and the Inventory Price, plus applicable federal, state and local sales, use, excise and transfer fees and taxes, including but not limited to motor fuels and superfund taxes. Purchaser shall make such payments to Seller, in accordance with Sections 4.2 through 4.5 of this Agreement, by wire transfer of immediately available funds (federal) to the Escrow Agent. The Escrow Agent shall disburse the funds to Seller in accordance with Section 17.3."

10. Amended Section 4.2. Section 4.2 of the Agreement is hereby amended and restated in its entirety as follows:

4.2 Earnest Money Deposit. Concurrently with the execution of this

Agreement, Purchaser has tendered to Seller the Earnest Money Deposit. The Earnest Money Deposit shall be kept by Seller unless this Agreement is terminated pursuant to Article 20 for reasons other than failure to perform or other breach by the Purchaser. The Earnest Money Deposit will be applied as a credit towards the Purchase Price."

11. Added Section 6.3. Section 6.3 is hereby supplemented into Section 6 of the Agreement as follows:

"6.3 Escrow Fees. Purchaser shall pay at Closing any fees or costs charged by Escrow Agent."

12. Amended Section 17.1. Section 17.1 of the Agreement is hereby amended and restated in its entirety as follows:

"17.1 Seller's Deliveries. By 10:00 a.m. E.S.T. on the Closing Date, Seller will deliver the following documents or instruments to Purchaser's counsel, as closing agent, who shall hold such documents in trust for the Purchaser until the sooner of the applicable Effective Date for the Site or the final Effective Date for all Sites:

(i) a Bill of Sale substantially in the form of Exhibit 17.1(i), transferring ownership of Seller's interest in and to the Personal Property;

(ii) a Bill of Sale substantially in the form of Exhibit 17.1(ii) transferring ownership of Seller's interest in and to the Inventory;

(iii) deeds substantially in the form of Exhibit 17.1(iii), transferring ownership of the Real Property;

(iv) an Assignment of Contracts, if any, substantially in the form of Exhibit 17.1(iv) assigning the Contracts;

(v) an Assignment of Leases, if any, substantially in the form of Exhibit 17.1(v) assigning the leased Real Property;

(vi) certified copy of a resolution of Seller's Board of Managers authorizing the transactions contemplated hereunder with a certificate of incumbency and specimen signature of each officer or individual executing this Agreement, or any other documents on behalf of Seller;

(vii) a certification by Seller substantially in the form of Exhibit 17.1(vii), verified as true and signed and sworn to under penalties of perjury by a duly authorized officer of Seller; if Seller does not so deliver such certification, then Purchaser shall, pursuant to Section 1445 of the Code, deduct and withhold ten percent (10%) from the Purchase Price identified at Section 4.1 or such lesser amount as may be specified in a withholding certificate issued by the Internal Revenue Service ("IRS") to Seller or Purchaser pursuant to Treasury Regulation Section 1.1445-3 of the Income Tax Regulations and, if obtained by Seller, delivered to Purchaser at the Closing; if Purchaser is required to, and does not, withhold such

amount, Purchaser shall pay such amount to the IRS in accordance with Section 1445 of the Code and Treasury Regulation Section 1.1445-1;

(iii) an IRS Form 8594 substantially in the form of Exhibit 17.1(b); and

13. Amended Section 17.2. Section 17.2 of the Agreement is hereby amended and restated in its entirety as follows:

"17.2 Purchaser's Deliveries. By 10:00 a.m. E.S.T. on the Closing Date, Purchaser will deliver the following documents or instruments to Seller and or take the following actions:

(i) execute and deliver to, and where necessary, acknowledge, witness and attest, original counterpart copies of the documents identified at Section 17.1 above;

(ii) certified copies of a resolution of Purchaser's Board of Directors authorizing the transactions contemplated hereunder with a certificate of incumbency and specimen signatures of each officer or individual executing this Agreement or any other documents on behalf of Purchaser;

(iii) deliver the payments required in Article 4 and Article 6 and all other Closing costs to the Escrow Agent;

(iv) resale certificates for sales and use taxes for the State of Ohio;

(v) such other documents or instruments as may be reasonably necessary to carry out the transactions contemplated by this Agreement."

14. Added Section 17.3. Section 17.3 is hereby supplemented into Section 17 of the Agreement as follows:

"17.3 Disbursement of Proceeds and Recording of Deeds.

(i) By 10:00 a.m. E.S.T. on the respective Effective Date for each Site, the Escrow Agent shall disburse the proceeds allocable to such Site to Seller by wire transfer in accordance with Seller's written instructions.

(ii) Purchaser's counsel will cause the deeds for each Site to be recorded on the respective Effective Date for each such Site. The disbursement of proceeds shall not be contingent on the recording of any deeds."

15. Added Section 17.4. Section 17.4 is hereby supplemented into Section 17 of the Agreement as follows:

"17.4 Interest-Bearing Account. All funds delivered to the Escrow Agent shall be deposited in an interest-bearing account as directed by

Purchaser. All interest accruing on such funds shall belong to Purchaser."

16. Captions. The captions in this Amendment are included for convenience of reference only and shall be ignored in the construction or interpretation of the provisions of this Amendment.
17. Agreement as Amended. This Amendment is limited as specified and shall not constitute a modification, acceptance or waiver of any other provision of the Agreement. From and after the date hereof, all references to the Agreement shall be deemed references to the Agreement as amended and supplemented hereby.

IN WITNESS WHEREOF, the parties have caused this Amendment to be duly executed by their respective officers, each of whom is duly and validly authorized and empowered, all as of the day and year first above written.

Speedway SuperAmerica LLC

By: 

Title: Sr. VP - Operations

KAH  
11/14/01

Schafer Investments, Ltd.

By: 

Title: Vice President



## SECOND AMENDMENT TO PURCHASE AND SALE AGREEMENT

THIS SECOND AMENDMENT TO PURCHASE AND SALE AGREEMENT (hereinafter, "Amendment"), dated as of NOVEMBER 29, 2001 by and between Speedway SuperAmerica LLC, a Delaware limited liability company ("Seller"), and Schafer Investments, Ltd., an Ohio limited liability company ("Purchaser").

### WITNESSETH

WHEREAS, Seller and Purchaser are parties to a Purchase and Sale Agreement dated as of October 22, 2001, as amended (the "Agreement");

WHEREAS, the transactions contemplated in the Agreement include a total of seven (7) Sites in the State of Ohio; and

WHEREAS, the parties desire to amend certain portions of the Agreement.

NOW, THEREFORE, for good and valuable consideration, the parties agree as follows:

1. Definitions. Except as otherwise provided herein all capitalized terms will have the meaning set forth in the Agreement.
2. Amended Section 1.1(c). Section 1.1(c) of the Agreement is hereby amended and restated in its entirety as follows:  
  

"(b) 'Closing Date' means the date upon which the Closing is scheduled to occur for each Site. The Closing Date for SSA Unit Numbers 1002, 1030, and 5465 shall be November 29, 2001 ('First Closing Date'). The Closing Date for SSA Unit Numbers 1008, 1060, 6329 and 8555 shall be December 18, 2001 ('Second Closing Date'). All references to the Closing Date hereafter shall refer to either the First Closing Date or Second Closing Date, as applicable."
3. Amended Section 4.2. Section 4.2 of the Agreement is hereby amended and restated in its entirety as follows:  
  

"4.2 Earnest Money Deposit. Concurrently with the execution of this Agreement, Purchaser has tendered to Seller the Earnest Money Deposit. The Earnest Money Deposit shall be kept by Seller unless this Agreement is terminated pursuant to Article 20 for reasons other than failure to perform or other breach by the Purchaser. The Earnest Money Deposit will be applied as a credit towards the Purchase Price on the Second Closing Date."
4. Added Section 20.1(g). Section 20.1(g) of the Agreement is hereby amended and restated in its entirety as follows:  
  

"(g) By either Seller or Purchaser (so long as the party exercising termination rights under this Section 20.1(g) has substantially complied

with, and is not in default of, any of its material conditions, obligations, or covenants under this Agreement), if Closing is delayed beyond December 31, 2001."

5. Captions. The captions in this Amendment are included for convenience of reference only and shall be ignored in the construction or interpretation of the provisions of this Amendment.
6. Agreement as Amended. This Amendment is limited as specified and shall not constitute a modification, acceptance or waiver of any other provision of the Agreement. From and after the date hereof, all references to the Agreement shall be deemed references to the Agreement as amended and supplemented hereby.

IN WITNESS WHEREOF, the parties have caused this Amendment to be duly executed by their respective officers, each of whom is duly and validly authorized and empowered, all as of the day and year first above written.

Speedway SuperAmerica LLC

By: \_\_\_\_\_

Title: \_\_\_\_\_

[Signature]  
Sr. Vice President



Schafer Investments, Ltd.

By: \_\_\_\_\_

Title: \_\_\_\_\_

[Signature]  
President

THIRD AMENDMENT TO  
PURCHASE AND SALE AGREEMENT

THIS THIRD AMENDMENT TO PURCHASE AND SALE AGREEMENT (hereinafter, "Amendment"), dated as of December 28, 2001 by and between Speedway SuperAmerica LLC, a Delaware limited liability company ("Seller"), and Schafer Investments, Ltd., an Ohio limited liability company ("Purchaser").

WITNESSETH

WHEREAS, Seller and Purchaser are parties to a Purchase and Sale Agreement dated as of October 22, 2001, as amended (the "Agreement");

WHEREAS, the transactions contemplated in the Agreement include a total of seven (7) Sites in the State of Ohio; and

WHEREAS, the parties desire to amend certain portions of the Agreement.

NOW, THEREFORE, for good and valuable consideration, the parties agree as follows:

1. Definitions. Except as otherwise provided herein all capitalized terms will have the meaning set forth in the Agreement.
2. Amended Section 15.1(c). Section 15.1(c) of the Agreement is hereby amended and restated in its entirety as follows:  
  
"(c) The rights granted in this Section 15.1 are provided to Purchaser, Second National Bank and Second National Bank's successors and/or assigns only and may not be assigned or transferred by operation of law or otherwise to any third party without the prior written consent of Seller."
3. Captions. The captions in this Amendment are included for convenience of reference only and shall be ignored in the construction or interpretation of the provisions of this Amendment.
4. Agreement as Amended. This Amendment is limited as specified and shall not constitute a modification, acceptance or waiver of any other provision of the Agreement. From and after the date hereof, all references to the Agreement shall be deemed references to the Agreement as amended and supplemented hereby.

IN WITNESS WHEREOF, the parties have caused this Amendment to be duly executed by their respective officers, each of whom is duly and validly authorized and empowered, all as of the day and year first above written.

Speedway SuperAmerica LLC

By: [Signature]

Title: Sr. VP Marketing and Planning



Schafer Investments, Ltd.

By: [Signature]

Title: President

## **COMMERCIAL LEASE**

This indenture made this 1st day of December, 2001, between Schafer Investments, Ltd., an Ohio limited liability company, hereinafter called the lessor, and Northtowne Sunoco, Inc., an Ohio corporation, hereinafter called the lessee, **WITNESSETH:**

1. **Premises Leased.** The lessor does hereby demise and let unto the lessee the premises known as 801 West Main Street, Troy, Ohio 45373.

2. **Term.** The lessee shall have and hold the same with the appurtenances thereunto belonging for and during the term of thirteen months from the 1st day of December, 2001, until the 31st day of December, 2002.

3. **Rent.** The lessee shall pay therefor the annual rent of [REDACTED] payable in monthly installments of \$4,000 each, on the first day of each month of said term, in advance, commencing December 1, 2001, all such rent being payable at the office of the lessor, 9109 St. Rt. 66, P.O. Box 13, Fort Loramie, Ohio 45845.

4. **Lessor's Covenants.** The lessor covenants and agrees with the lessee that the lessor will indemnify and save the lessee harmless from and against any loss, damage and liability occasioned by, growing out of, or arising or resulting from any default by lessor hereunder or from any tortious or negligent act on the part of the lessor, the lessor's agents or employees.

5. **Lessee's Covenants.** The lessee does hereby covenant and agree with the lessor that the lessee will:

- (a) pay said rent at the times and place and in the manner aforesaid.
- (b) transfer the utility accounts into lessee's name by no later than the date of commencement of this lease and pay said utility accounts in a prompt and timely manner.

- (c) use and occupy said premises in a careful and proper manner.
- (d) not commit any waste therein.
- (e) not use or occupy said premises for any unlawful purpose and conform to and obey all present and future laws and ordinances and all rules, regulations, requirements and orders of all governmental authorities or agencies respecting the use and occupation of the premises by the lessee.
- (f) not assign this lease, nor underlet said premises, nor any part thereof, without the written consent of said lessor, provided, however, that such consent shall not be unreasonably withheld.
- (g) not use or occupy said premises or permit the same to be used or occupied for any purpose or business deemed hazardous on account of fire or otherwise.
- (h) make no alterations or additions in or to said premises without the written consent of said lessor.
- (i) leave the premises at the expiration or prior termination of this lease or any renewal or extension thereof in as good condition as received or in which they may be put by the lessor, excepting reasonable wear and tear and damage arising from the negligence or default of the lessor or the lessor's agents or employees.
- (j) permit the lessor to enter upon said premises at all reasonable times to examine the condition of same.
- (k) indemnify and save harmless the lessor from and against any loss, damage and liability occasioned by, growing out of, or arising or resulting from any default by lessee hereunder or from any tortious or negligent act on the part of the lessee, the lessee's agents or employees.

- (l) maintain the demised premises in good repair and tenantable condition during the continuance of this lease, except in case of damage arising from the negligence of the lessor or the lessor's agents or employees, and subject to the provisions of paragraph 6(a).
- (m) pay all real estate taxes and assessments due during the term of this lease and any and all extensions thereof.
- (n) procure and maintain a policy of public liability insurance in an amount no less than [REDACTED] single limit.
- (o) procure and maintain a policy of fire and casualty insurance on the structure occupying the premises.

6. **Mutual Covenants.** It is mutually agreed by and between the lessor and the lessee that:

- (a) lessor shall be under no obligation to lessee to maintain insurance upon any property of lessee located upon or within the leased premises.
- (b) all fixtures and/or equipment of whatsoever nature as shall be installed in the demised premises by the lessee, whether permanently affixed thereto or otherwise, shall continue to be the property of the lessee and may be removed by the lessee at the expiration or termination of this lease or any renewal or extension thereof; provided, however, that the lessee shall at the lessee's own expense repair any injury to the premises resulting from such removal.
- (c) if the lessee shall pay the rent as herein provided and shall keep, observe and perform all of the other covenants of this lease by the lessee to be kept, performed and

observed, the lessee shall and may peaceably and quietly have, hold and enjoy the said premises for the term aforesaid.

(d) if the lessee shall at any time be in default in the payment of rent herein reserved or in the performance of any of the covenants, terms, conditions or provisions of this lease and shall fail to remedy such default within ten (10) days after written notice thereof from the lessor, or if the lessee shall be adjudged a bankrupt, or shall make an assignment for the benefit of creditors, or if the receiver of any property of the lessee in or upon said premises be appointed in any action, suit or proceeding by or against the lessee, or if the interest of the lessee in said premises shall be sold under execution or other legal process, it shall be lawful for the lessor to enter upon said premises and again have, repossess and enjoy the same as if this lease had not been made, and thereupon this lease and everything herein contained on the part of the lessor to be done and performed shall cease and determine, without prejudice, however, to the right of the lessor to recover from the lessee all rent due up to the time of such entry and such other damages to which the lessor may be entitled by the terms of this lease and otherwise. In case of any such default and entry by the lessor, said lessor may relet said premises for the remainder of said term for the highest rent obtainable and may recover from the lessee any deficiency between the amount so obtained and the rent herein reserved.

(e) this lease and all the covenants, provisions and conditions herein contained shall inure to the benefit of and be binding upon the successors and assigns of the parties hereto; provided, however, that no assignment by, from, through or under the lessee

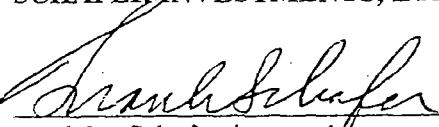


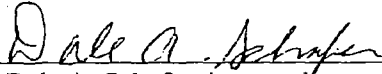
in violation of any of the provisions hereof shall vest in the assigns any right, title or interest whatsoever.

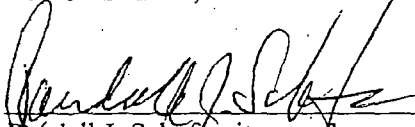
- (f) the lessee shall have the right, privilege and option to extend this lease for an additional term of one year each from and after the expiration of the term hereby created, upon the condition, however, that the rent for any additional term after the expiration of the term hereby created shall be negotiated in good faith by the parties, the rent to be payable in advance and upon the terms as hereinbefore stated. This option may be exercised only in the event that all rents have been fully paid and all covenants, agreements, provisions, terms and conditions of this lease on the part of the lessee to be performed, kept and observed have been fully performed, kept and observed.
- (g) if during the term hereof the demised premises or any part thereof be rendered untenable by public authority, by fire, the elements, or by other casualty (except such as shall have resulted from the negligence of the lessee), a proportionate part of the rent herein reserved (whether paid in advance or otherwise), according to the extent of such untenability, shall be abated and suspended until the premises are again made tenantable and restored to their former condition by lessor; and if the premises or a substantial part thereof are thereby rendered untenable and so remain for a period of sixty days, the lessee may at the lessee's option terminate this lease by written notice to the lessor; provided, however, that if the premises cannot by reasonable efforts be restored to their former condition within sixty (60) days, either the lessor or the lessee shall have the option of terminating this lease by written notice to the other.

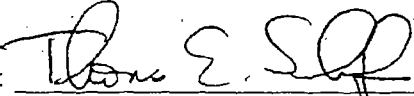
Executed by the lessor and the lessee on the day and year first above written.

**SCHAFER INVESTMENTS, LTD.**

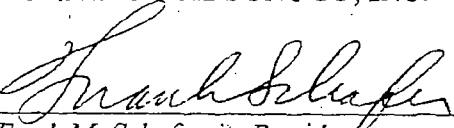
By:   
Frank M. Schafer, its member

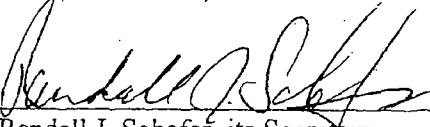
By:   
Dale A. Schafer, its member

By:   
Randall J. Schafer, its member

By:   
Thomas E. Schafer, its member

**NORTHTOWNE SUNOCO, INC.**

By:   
Frank M. Schafer, its President

By:   
Randall J. Schafer, its Secretary

Unit No.: 1030  
Location: 801 W. Main & Elm Sts.  
Troy, OH  
T&C: 05-456-OH-281

In Compliance with Ohio State	
CHRIS A. PEEPLES, Miami County Auditor	
By _____	
DEC 26 2001	
Total Fee	\$ 5,000.00
ORC 319.54	\$ 1,597.50
ORC 322.02	\$ 1,402.50
Exempt	<input type="checkbox"/>

COPY

MIAMI COUNTY RECORDER  
JOHN W. O'BRIEN  
0326005  
PRESENTED FOR RECORD  
MIAMI COUNTY, TROY, OHIO  
12-26-2001 10:11:48 AM

**LIMITED WARRANTY DEED**

REFERENCES 0  
RECORDING FEE 22.00  
PAGES: 4

THIS LIMITED WARRANTY DEED made and entered into as of the 28<sup>th</sup> day of November, 2001, by and between **Speedway SuperAmerica LLC**, (successor by merger to Emro Marketing Company, successor by merger to Bonded Oil Company) a Delaware limited liability company with a mailing address of 500 Speedway Drive, Enon, Ohio 45323 ("Grantor"), and **Schafer Investments, Ltd.**, an Ohio limited liability company with a mailing address of P. O. Box 13, 9109 SR 66, Fort Loramie, Ohio 48845-0013 ("Grantee").

**WITNESSETH:**

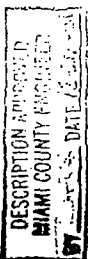
THAT, for and in consideration of the sum of [REDACTED] cash in hand paid, the receipt of all of which is hereby acknowledged, Grantor hereby grants, bargains, sells and conveys to Grantee, its heirs and assigns, forever, in fee simple, all the following tract or parcel of land situate in the City of Troy, Miami County, Ohio, being more particularly described as follows (the "Property"):

TRACT ONE: Being the south part of Inlot 248 in said City more particularly described as follows: Beginning at an iron pin which marks the southeast corner of Inlot 248, same being a point on the north line of West Main Street; thence North 49° 33' West, with the South line of Inlot 248, 50.0 feet to an iron pin; thence North 40° 14' East, with the West line of Inlot 248, 83.29 feet to an iron pin; thence South 49° 33' East, crossing Inlot 248, 50.0 feet to an iron pin; thence South 40° 14' West, with the East line of Inlot 248, 83.29 feet to the place of beginning, containing 4164.5 square feet of Inlot 248.

In accordance with a survey of Richard W. Klockner, Professional Surveyor as recorded in Plat No. 196, Vol. 12, Miami County Engineer's Record of Lot Surveys.

TRACT TWO: All that part of Inlot No. 249 in the City of Troy, Miami County, Ohio, more fully described as follows: Beginning at the southeast corner of said Inlot No. 249, being the intersection of the west line of Elm Street with the northerly line of Main Street; running thence north 10° 50' east 95.80 feet along the west line of Elm Street to a cross mark in concrete wall; running thence north 49° 33' west parallel with the northerly line of Main Street 55.65 feet to an iron pin; running thence south 40° 14' west 83.29 feet to an iron pin on the northerly side of Main Street; running thence south 49° 33' east 102.68 feet to point of beginning.

In accordance with a survey of C. C. Carpenter, Professional Surveyor as recorded in Vol. 2, Page 57, Miami County Engineer's Record of Lot Surveys.



FILED 12/26/01

EXCEPTING THEREFROM, the following described tract of ground, beginning at a cross cut in concrete, marking the Southeast corner of Inlot 249; thence North 60° West, along the North line of West Main Street, a distance of 15.0 feet to a point; thence North 60° 12' 45" East, crossing Inlot 249, a distance of 15.10 feet to a point on the West line of North Elm Street; thence South 0° 25' 30" West, along said West line of Elm Street, a distance of 15.0 feet to the cross cut marking the true place of beginning. The above described tract was dedicated for street purposes, as shown in Recorder's Plat Book 18, Page 127.

PRIOR INSTRUMENT REFERENCE: Book 511, page 233  
PARCEL ID NO.: D08-005220 & D08-005240

TO HAVE AND TO HOLD the same premises, as herein described, with the appurtenances, unto the said Grantee, its heirs and assigns, forever:

This conveyance is made subject to (i) any state of facts that an accurate survey would show; (ii) restrictions, easements, rights of way, exceptions, reservations and conditions contained in prior instruments of record in the chain of title to the Property; (iii) legal highways, zoning and building laws, ordinances or regulations; (iv) any lien for taxes that are not yet due and payable; (v) rights of others to the banks, waters and flow of any river or body of water abutting the Property, if any; (vi) rights of lessees, if any, in possession of any portion of the Property; and (vii) minor encumbrances that do not prohibit the use of the Property as a motor fuel service station or convenience store.

To reduce risks to human health and/or the environment, and to permit application of corrective action standards which are consistent with the non-residential use (or other lower-risk use) of the Property, this conveyance is made by Grantor and accepted by Grantee upon the express condition and subject to the restrictions and covenants that: (i) the Property shall not be used or occupied (if used or occupied at all) for residential purposes or for purposes of a child care or elder care facility, a nursing home facility or hospice, a hotel or motel, a medical or dental facility, a school, a church, a park, or a hospital; (ii) any building constructed on the Property shall have a slab-on-grade foundation with the top of the slab at or above surface level; and (iii) no water supply wells of any kind (including without limitation water wells used for drinking, bathing or other human consumption purposes and water wells used for livestock, farming or irrigation) shall be installed or used on the Property (collectively, "Exposure Restriction"); provided, however, that the Exposure Restriction does not prohibit the installation or use of any compliance wells, or any groundwater monitoring, recovery or extraction wells or similar devices used for or related to the performance of assessments, remediation or any other corrective action on the Property now or in the future. Grantee hereby agrees to indemnify, defend and hold harmless the Grantor from and against any and all losses, damages, claims, suits or actions, judgments and costs (including reasonable attorney fees) that arise out of or relate to any use of the Property which is in violation of or inconsistent with the Exposure Restriction. The Exposure Restriction shall run

with the Property and each portion thereof for the benefit of the Grantor and shall bind Grantee, its successors, assigns and all future owners of the Property, and their respective directors, officers, employees, contractors, agents, representatives, lessees, licensees, invitees, and any user or occupant of all or any portion of the Property.

This conveyance is made by Grantor and accepted by Grantee upon the express condition and subject to the following restriction and covenant: Grantee agrees that for a period of ten (10) years from and after the date of this conveyance, the Property shall not be used for the sale, marketing, storage or advertising of motor fuels, except the trademarked products of MARATHON ASHLAND PETROLEUM LLC, its successors and assigns, purchased either directly from MARATHON ASHLAND PETROLEUM LLC, its successors and assigns, or from a MARATHON® branded Jobber (hereinafter defined). This restriction shall be a covenant running with the land and shall be contained in and made a part of every deed, mortgage, lease or other instrument affecting the title to the Property. The term "Jobber" as used herein shall mean any person or entity that owns or operates more than one (1) MARATHON® branded motor fuel station and sells in excess of 3,000,000 gallons of MARATHON® branded fuel annually.

Grantor, insofar as it has the legal right to do so, does further release, remise and forever quitclaim unto Grantee, all of Grantor's rights, title and interest, if any, in and to all roadways, streets, alleys, easements and rights of way adjacent to or abutting on the property above described.

Grantor will forever warrant the title to the said premises (except for the property quitclaimed by the immediately preceding paragraph) unto the Grantee, its successor and assigns, against Grantor's acts, but no others; provided, however, that any one claim or all claims and demands in the aggregate, pursuant to this warranty, shall in no event exceed the amount of consideration paid by Grantee to Grantor which the parties agree is \$262,000.00.

The parties do hereby agree that current property taxes and all assessments on the property conveyed hereby shall be prorated as of the date of this Deed, and Grantee assumes and agrees to pay such from and after the date hereof.


The terms and provisions contained herein shall be binding upon and inure to the benefit of the parties hereto, their respective heirs, personal representatives, successors and assigns.

568 PAGE 77 / 100

Signed and delivered in the presence of:

Kelly Houghton  
Witness

Speedway SuperAmerica LLC

By:   
Name: G. E. Baroker  
Title: Sr. Vice President - Operations

APPROVED  
AS TO FORM

STATE OF OHIO )  
 ) SS  
COUNTY OF CLARK )

Notary Public

(SEAL)

ROSALIE B. LAWSON, NOTARY PUBLIC  
IN AND FOR THE STATE OF OHIO

~~MY COMMISSION EXPIRES MARCH 3, 2005~~

076704 221 07MA



1/20/11

## Material Safety Data Sheet

MSDS ID NO.: 0121MAR019  
Revision date: 12/07/2010

### 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

**Product name:** Marathon K-1 Kerosene 400 ppm Sulfur Max  
**Synonym:** 1-K Kerosine 400 ppm Sulfur Max; 1-K Kerosene 400 ppm Sulfur Max; Kerosine K-1 400 ppm Sulfur Max; Kerosene K-1 400 ppm Sulfur Max; Kerosene K-1; K-1 Kerosene; K-1 Kerosene, Non-Road Use, Undyed  
**Chemical Family:** Petroleum Hydrocarbon  
**Formula:** Mixture

**Manufacturer:**  
Marathon Petroleum Company LP  
539 South Main Street  
Findlay OH 45840

Question 2

**Other information:** 419-421-3070  
**Emergency telephone number:** 877-627-5463

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

1-K Kerosine is a complex mixture of paraffins, cycloparaffins, olefins and aromatic hydrocarbons having hydrocarbon chain lengths predominantly in the range of C9 through C16. May contain a trace amount of benzene (<0.01%). Contains a trace amount of sulfur (15-400 ppm).

#### Product information:

Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA - Vacated PELs - Time Weighted Ave	Other:
Marathon K-1 Kerosene	8008-20-6	100	Skin - potential significant contribution to overall exposure by the cutaneous route 200 mg/m <sup>3</sup> TWA		

#### Component Information:

Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA - Vacated PELs - Time Weighted Ave	Other:
Saturated Hydrocarbons	Mixture	70-80			
Aromatic Hydrocarbons	Mixture	17-25			
Unsaturated Hydrocarbons	Mixture	3-6			
Naphthalene	91-20-3	0.01-0.5	Skin - potential significant contribution to overall exposure by the cutaneous route 10 ppm TWA 15 ppm STEL	= 10 ppm TWA = 50 mg/m <sup>3</sup> TWA = 15 ppm STEL = 75 mg/m <sup>3</sup> STEL	

#### Notes:

The manufacturer has voluntarily elected to reflect exposure limits contained in OSHA's 1989 air contaminants standard in its MSDS's, even though certain of those exposure limits were vacated in 1992.

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

##### CAUTION!

VAPORS, FUMES, OR MISTS MAY CAUSE RESPIRATORY TRACT IRRITATION  
MAY BE HARMFUL OR FATAL IF SWALLOWED  
MAY CAUSE LUNG DAMAGE  
OVEREXPOSURE MAY CAUSE CNS DEPRESSION  
SEE TOXICOLOGICAL INFORMATION SECTION FOR MORE INFORMATION

COMBUSTIBLE LIQUID AND VAPOR  
VAPOR MAY CAUSE FLASH FIRE

##### STABLE

##### Inhalation:

Exposure to high vapor concentrations may produce headache, giddiness, vertigo, and anesthetic stupor.

##### Ingestion:

Ingestion may result in nausea, vomiting, diarrhea and restlessness. Aspiration (inadvertent suction) of liquid into the lungs must be avoided as even small quantities in the lungs can produce chemical pneumonitis, pulmonary edema/hemorrhage and even death.

##### Skin contact:

Prolonged and repeated liquid contact can cause defatting and drying of the skin and can lead to irritation and/or dermatitis.

##### Eye contact:

Produces little or no irritation on direct contact with the eye.

##### Carcinogenic Evaluation:

##### Product information:

Name	IARC Carcinogens:	NTP Carcinogens:	ACGIH - Carcinogens:	OSHA - Select Carcinogens:
Marathon K-1 Kerosene 8008-20-6	NE	male mice-no evidence; female mice-no evidence	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans	

##### Notes:

The International Agency for Research on Cancer (IARC) has determined that there is inadequate evidence for the carcinogenicity of diesel fuel/fuel oil in humans. IARC determined that there was limited evidence for the carcinogenicity of marine diesel fuel in animals. Distillate (light) diesel fuels were not classifiable as to their carcinogenicity to humans (Group 3A).

IARC has determined that there is sufficient evidence for the carcinogenicity in experimental animals of diesel engine exhaust and extracts of diesel engine exhaust particles. IARC determined that there is only limited evidence for the carcinogenicity in humans of diesel engine exhaust. However, IARC's overall evaluation has resulted in the IARC designation of diesel engine exhaust as probably carcinogenic to humans (Group 2A) because of the presence of certain engine exhaust components.

##### Component Information:

Name	IARC Carcinogens:	NTP Carcinogens:	ACGIH - Carcinogens:	OSHA - Select Carcinogens:
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Name	IARC Carcinogens:	NTP Carcinogens:	ACGIH - Carcinogens:	OSHA - Select Carcinogens:
Naphthalene 91-20-3	Monograph 82 [2002]	Reasonably Anticipated To Be A Human Carcinogen male rat-clear evidence; female rat-clear evidence; male mice-no evidence; female mice-some evidence	A4 - Not Classifiable as a Human Carcinogen	Present

**Notes:**

The International Agency for Research on Cancer (IARC) and the Environmental Protection Agency (EPA) have determined that naphthalene is a possible human carcinogen.

#### 4. FIRST AID MEASURES

**Eye Contact:**

Flush eyes with large amounts of tepid water for at least 15 minutes. If symptoms or irritation occur, call a physician.

**Skin Contact:**

Wash with soap and large amounts of water. Remove contaminated clothing. If symptoms or irritation occur, call a physician.

**Ingestion:**

If swallowed, do not induce vomiting and do not give liquids. Immediately call a physician.

**Inhalation:**

If affected, move person to fresh air. If breathing is difficult, administer oxygen. If not breathing or if no heartbeat, give artificial respiration or cardiopulmonary resuscitation (CPR). Immediately call a physician. If symptoms or irritation occur with any exposure, call a physician.

**NOTES TO PHYSICIAN:**

INGESTION: If ingested this material represents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended.

**Medical Conditions**

**Aggravated**

**By Exposure:**

Pre-existing skin conditions and respiratory disorders may be aggravated by exposures to components of this product.

#### 5. FIRE FIGHTING MEASURES

**Suitable extinguishing media:**

For small fires, Class B fire extinguishing media such as CO<sub>2</sub>, dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFF/ATC) can be used. Fire fighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.

**Specific hazards:**

This product has been determined to be a combustible liquid per the OSHA Hazard Communication Standard and should be handled accordingly. For additional fire related information, see NFPA 30 or the North American Emergency Response Guide 128.

## 5. FIRE FIGHTING MEASURES

### Special protective equipment for firefighters:

Avoid using straight water streams. Water spray and foam (AFFF/ATC) must be applied carefully to avoid frothing and from as far a distance as possible. Avoid excessive water spray application. Keep surrounding area cool with water spray from a distance and prevent further ignition of combustible material. Keep run-off water out of sewers and water sources.

Flash point:

120-190 F

Autoignition temperature:

489 F

Flammable limits in air - lower (%):

0.7

Flammable limits in air - upper (%):

5.0

### NFPA rating:

Health: 1

Flammability: 2

Instability: 0

Other: -

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions:

Keep public away. Isolate and evacuate area. Shut off source if safe to do so. Advise authorities and National Response Center (800-424-8802) if the product has entered a water course or sewer. Notify local health and pollution control agencies, if appropriate. Contain liquid with sand or soil. Recover and return free product to proper containers. Use suitable absorbent materials such as vermiculite, sand, or clay to clean up residual liquids.

## 7. HANDLING AND STORAGE

### Handling:

Comply with all applicable EPA, OSHA, NFPA and consistent state and local requirements. Use appropriate grounding and bonding practices. Store in properly closed containers that are appropriately labeled and in a cool well-ventilated area. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. Do not cut, drill, grind or weld on empty containers since they may contain explosive residues.

Avoid repeated and prolonged skin contact. Never siphon this product by mouth. Exercise good personal hygiene including removal of soiled clothing and prompt washing with soap and water.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### PERSONAL PROTECTIVE EQUIPMENT

#### Engineering measures:

Local or general exhaust required when using at elevated temperatures that generate vapors or mists.

#### Respiratory protection:

Use approved organic vapor chemical cartridge or supplied air respirators when material produces vapors that exceed permissible limits or excessive vapors are generated. Observe respirator assigned protection factors (APFs) criteria cited in federal OSHA 1910.134. Self-contained breathing apparatus should be used for fire fighting.

#### Skin and body protection:

Neoprene, nitrile, polyvinyl alcohol (PVA), polyvinyl chloride and polyurethane gloves to prevent skin contact.

**Eye protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields.

**Hygiene measures:** No special protective clothing is normally required. Select protective clothing depending on industrial operations. Use mechanical ventilation equipment that is explosion-proof.

## 9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance:	Clear to Amber Liquid
Physical state (Solid/Liquid/Gas):	Liquid
Substance type (Pure/Mixture):	Mixture
Color:	Clear or Amber
Odor:	Slight Hydrocarbon
Molecular weight:	180
pH:	Neutral
Boiling point/range (5-95%):	360-550 F
Melting point/range:	Not determined.
Decomposition temperature:	Not applicable.
Specific gravity:	C.A. 0.8
Density:	6.76 lbs/gal
Bulk density:	No data available.
Vapor density:	4-5
Vapor pressure:	1-10 mm Hg @ 100 F
Evaporation rate:	No data available.
Solubility:	Negligible
Solubility in other solvents:	No data available.
Partition coefficient (n-octanol/water):	No data available.
VOC content(%):	10%
Viscosity:	1.3-2.1 @ 50 C

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	The material is stable at 70 F, 760 mm pressure.
<b>Polymerization:</b>	Will not occur.
<b>Hazardous decomposition products:</b>	Combustion produces carbon monoxide, aldehydes, aromatic and other hydrocarbons.
<b>Materials to avoid:</b>	Strong oxidizers such as nitrates, perchlorates, chlorine, fluorine.
<b>Conditions to avoid:</b>	Excessive heat, sources of ignition and open flames.

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity:**

**Product information:**

Name	CAS Number	Inhalation:	Dermal:	Oral:
Marathon K-1 Kerosene	8008-20-6	>2 mg/l for 4 hr [Rat]	>5 ml/kg [Rabbit]	9-16 ml/kg [Rat]

**Toxicology Information:**

**MIDDLE DISTILLATES, PETROLEUM:** Long-term repeated (lifetime) skin exposure to similar materials has been reported to result in an increase in skin tumors in laboratory rodents. The relevance of these findings to humans is not clear at this time.

**ISOPARAFFINS:** Studies in laboratory animals have shown that long-term exposure to similar materials (isoparaffins) can cause kidney damage and kidney cancer in male laboratory rats. However, in-depth research indicates that these findings are unique to the male rat, and that these effects are not relevant to humans.

**NAPHTHALENE:** Severe jaundice, neurotoxicity (kernicterus) and fatalities have been reported in young children and infants as a result of hemolytic anemia from overexposure to naphthalene. Persons with Glucose 6-phosphate dehydrogenase (G6PD) deficiency are more prone to the hemolytic effects of naphthalene. Adverse effects on the kidney have been reported in persons overexposed to naphthalene but these effects are believed to be a consequence of hemolytic anemia, and not a direct effect. Hemolytic anemia has been observed in laboratory animals exposed to naphthalene. Laboratory rodents exposed to naphthalene vapor for 2 years (lifetime studies) developed non-neoplastic and neoplastic tumors and inflammatory lesions of the nasal and respiratory tract. Cataracts and other adverse effects on the eye have been observed in laboratory animals exposed to high levels of naphthalene. Findings from a large number of bacterial and mammalian cell mutation assays have been negative. A few studies have shown chromosomal effects (elevated levels of Sister Chromatid Exchange or chromosomal aberrations) in vitro. Naphthalene has been classified as Possibly Carcinogenic to Humans (2B) by IARC, based on findings from studies in laboratory animals.

**DIESEL EXHAUST:** Chronic inhalation studies of whole diesel engine exhaust in mice and rats produced a significant increase in lung tumors. Combustion of kerosine and/or diesel fuels produces gases and particulates which include carbon monoxide, carbon dioxide, oxides of nitrogen and/or sulfur and hydrocarbons. Significant exposure to carbon monoxide vapors decreases the oxygen carrying capacity of the blood and may cause tissue hypoxia via formation of carboxyhemoglobin.

Altered mental state, drowsiness, peripheral motor neuropathy, irreversible brain damage (so-called Petrol Sniffers Encephalopathy), delirium, seizures, and sudden death have been reported from repeated overexposure to some hydrocarbon solvents, naphthas, and gasoline:

**TARGET ORGANS:**

central nervous system, skin, respiratory system, lungs, kidney, liver,

## 12. ECOTOXICOLOGICAL INFORMATION

**Mobility:**

May partition into air, soil and water.

**Ecotoxicity:**

Toxic to aquatic organisms.

**Bioaccumulation:**

Not expected to bioaccumulate in aquatic organisms.

**Persistence/Biodegradation:**

Readily biodegradable in the environment.

### 13. DISPOSAL CONSIDERATIONS

#### Cleanup Considerations:

This product as produced is not specifically listed as an EPA RCRA hazardous waste according to federal regulations (40 CFR 261). However, when discarded or disposed of, it may meet the criteria of an "characteristic" hazardous waste. This material could become a hazardous waste if mixed or contaminated with a hazardous waste or other substance(s). It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

### 14. TRANSPORT INFORMATION

49 CFR 172.101:

#### DOT:

**Transport Information:** This material when transported via US commerce would be regulated by DOT Regulations.

<b>Proper shipping name:</b>	Kerosene
<b>UN/Identification No:</b>	UN 1223
<b>Hazard Class:</b>	3
<b>Packing group:</b>	III
<b>DOT reportable quantity (lbs):</b>	Not applicable.

<b>Proper shipping name:</b>	Kerosene
<b>UN/Identification No:</b>	UN 1223
<b>Hazard Class:</b>	3
<b>Packing group:</b>	III

### 15. REGULATORY INFORMATION

#### US Federal Regulatory Information:

US TSCA Chemical Inventory Section 8(b):

This product and/or its components are listed on the TSCA Chemical Inventory.

OSHA Hazard Communication Standard:

This product has been evaluated and determined to be hazardous as defined in OSHA's Hazard Communication Standard.

#### EPA Superfund Amendment & Reauthorization Act (SARA):

##### SARA Section 302:

This product contains the following component(s) that have been listed on EPA's Extremely Hazardous Substance (EHS) List:

Name	CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs
Saturated Hydrocarbons	NA
Aromatic Hydrocarbons	NA
Unsaturated Hydrocarbons	NA
Naphthalene	NA

MSDS ID NO.: 0121MAR019

Product name: Marathon K-1 Kerosene 400 ppm Sulfur Max

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**SARA Section 304:**

This product contains the following component(s) identified either as an EHS or a CERCLA Hazardous substance which in case of a spill or release may be subject to SARA reporting requirements:

Name	CERCLA/SARA - Hazardous Substances and their Reportable Quantities
Saturated Hydrocarbons	NA
Aromatic Hydrocarbons	NA
Unsaturated Hydrocarbons	NA
Naphthalene	= 100 lb final RQ = 45.4 kg final RQ

**SARA Section 311/312**

The following EPA hazard categories apply to this product:

Acute Health Hazard  
Fire Hazard  
Chronic Health Hazard

**SARA Section 313:**

This product contains the following component(s) that may be subject to reporting on the Toxic Release Inventory (TRI) From R:

Name	CERCLA/SARA 313 Emission reporting:
Saturated Hydrocarbons	None
Aromatic Hydrocarbons	None
Unsaturated Hydrocarbons	None
Naphthalene	= 0.1 % de minimis concentration

**State and Community Right-To-Know Regulations:**

The following component(s) of this material are identified on the regulatory lists below:

**Saturated Hydrocarbons**

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed
Pennsylvania Right-To-Know:	Not Listed
Massachusetts Right-To-Know:	Not Listed
Florida substance List:	Not Listed
Rhode Island Right-To-Know:	Not Listed
Michigan critical materials register list:	Not Listed
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed

**Aromatic Hydrocarbons**

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed
Pennsylvania Right-To-Know:	Not Listed
Massachusetts Right-To-Know:	Not Listed

#### Saturated Hydrocarbons

Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed

#### Unsaturated Hydrocarbons

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To Know:	Not Listed.
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed

#### Naphthalene

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	carcinogen, initial date 4/19/02
New Jersey Right-To-Know:	sn 1322
Pennsylvania Right-To-Know:	Environmental hazard
Massachusetts Right-To Know:	Present
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Toxic; Flammable
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	carcinogen

**Saturated Hydrocarbons**

New Jersey - Environmental Hazardous  
Substances List:

Illinois - Toxic Air Contaminants

New York - Reporting of Releases Part 597 -  
List of Hazardous Substances:

SN 1322 TPQ 500 lb

Present

= 1 lb RQ land/water

= 100 lb RQ air

**Canadian Regulatory Information:**

Canada DSL/NDL Inventory: This product and/or its components are listed either on the Domestic Substances List (DSL) or are exempt.

Name	Canada - WHMIS: Classifications of Substances:	Canada - WHMIS: Ingredient Disclosure:
Naphthalene	B4, D2A	1 %

**NOTE:** Not Applicable.

**16. OTHER INFORMATION**

**Additional Information:** No data available.

**Prepared by:** Mark S. Swanson, Manager, Toxicology and Product Safety

The information and recommendations contained herein are based upon tests believed to be reliable. However, Marathon Petroleum Company LP (MPC) does not guarantee their accuracy or completeness nor shall any of this information constitute a warranty, whether expressed or implied, as to the safety of the goods, the merchantability of the goods, or the fitness of the goods for a particular purpose. Adjustment to conform to actual conditions of usage maybe required. MPC assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

**End of Safety Data Sheet**





1/20/11

## Material Safety Data Sheet

MSDS ID NO.: 0291MAR019  
Revision date: 12/07/2010

### 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

**Product name:** Marathon No. 2 Ultra Low Sulfur Diesel Dyed 15 ppm Sulfur Max  
**Synonym:** Ultra Low Sulfur Diesel No. 2 Dyed 15 ppm Sulfur Max; Ultra Low Sulfur Diesel No. 2 Dyed 15 ppm Sulfur Max with Polar Plus; No. 2 Diesel, Tax Exempt-Motor Vehicle Use, Dyed; No. 2 Diesel, Tax Exempt-Motor Vehicle Use, Dyed, with Polar Plus; ULSD No. 2 Diesel Dyed 15 ppm Sulfur Max; ULSD No. 2 Diesel Dyed 15 ppm Sulfur Max, with Polar Plus; No. 2 MV 15 Diesel Dyed; No. 2 MV 15 Diesel Dyed, with Polar Plus.  
**Chemical Family:** Petroleum Hydrocarbon  
**Formula:** Mixture

**Manufacturer:**  
Marathon Petroleum Company LP  
539 South Main Street Findlay OH 45840

**Other information:** 419-421-3070  
**Emergency telephone number:** 877-627-5463

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

No. 2 Ultra Low Sulfur Diesel is a complex mixture of paraffins, cycloparaffins, olefins and aromatic hydrocarbon chain lengths predominantly in the range of C9-C16. Can contain small amounts of red dye and additives (<0.15%) which are not considered hazardous at the concentrations used.

#### Product information:

Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA - Vacated PELs - Time Weighted Ave	Other:
Marathon No. 2 Ultra Low Sulfur Diesel	68476-30-2	100	Skin - potential significant contribution to overall exposure by the cutaneous route 100 mg/m <sup>3</sup> TWA		

#### Component Information:

Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA - Vacated PELs - Time Weighted Ave	Other:
Saturated Hydrocarbons	Mixture	70-80			
Aromatic Hydrocarbons	Mixture	17-25			
Unsaturated Hydrocarbons	Mixture	3-6			
Naphthalene	91-20-3	0.01-0.5	Skin - potential significant contribution to overall exposure by the cutaneous route 10 ppm TWA 15 ppm STEL	= 10 ppm TWA = 50 mg/m <sup>3</sup> TWA = 15 ppm STEL = 75 mg/m <sup>3</sup> STEL	

**Notes:** The manufacturer has voluntarily elected to reflect exposure limits contained in OSHA's 1989 air contaminants standard in its MSDS's, even though certain of those exposure limits were vacated in 1992.

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

CAUTION!

VAPORS, FUMES, OR MISTS MAY CAUSE RESPIRATORY TRACT IRRITATION  
MAY BE HARMFUL OR FATAL IF SWALLOWED  
MAY CAUSE LUNG DAMAGE  
OVEREXPOSURE MAY CAUSE CNS DEPRESSION  
SEE TOXICOLOGICAL INFORMATION SECTION FOR MORE INFORMATION

COMBUSTIBLE LIQUID AND VAPOR  
VAPOR MAY CAUSE FLASH FIRE

STABLE

#### Inhalation:

Exposure to high vapor concentrations may produce headache, giddiness, vertigo, and anesthetic stupor.

#### Ingestion:

Ingestion may result in nausea, vomiting, diarrhea and restlessness. Aspiration (inadvertent suction) of liquid into the lungs must be avoided as even small quantities in the lungs can produce chemical pneumonitis, pulmonary edema/hemorrhage and even death.

#### Skin contact:

Prolonged and repeated liquid contact can cause defatting and drying of the skin and can lead to irritation and/or dermatitis.

#### Eye contact:

Produces little or no irritation on direct contact with the eye.

#### Carcinogenic Evaluation:

##### Product information:

Name	IARC Carcinogens:	NTP Carcinogens:	ACGIH - Carcinogens:	OSHA - Select Carcinogens:
Marathon No. 2 Ultra Low Sulfur Diesel 68476-30-2	NE			

#### Notes:

The International Agency for Research on Cancer (IARC) has determined that there is inadequate evidence for the carcinogenicity of diesel fuel/fuel oil in humans. IARC determined that there was limited evidence for the carcinogenicity of marine diesel fuel in animals. Distillate (light) diesel fuels were not classifiable as to their carcinogenicity to humans (Group 3A).

IARC has determined that there is sufficient evidence for the carcinogenicity in experimental animals of diesel engine exhaust and extracts of diesel engine exhaust particles. IARC determined that there is only limited evidence for the carcinogenicity in humans of diesel engine exhaust. However, IARC's overall evaluation has resulted in the IARC designation of diesel engine exhaust as probably carcinogenic to humans (Group 2A) because of the presence of certain engine exhaust components.

##### Component Information:

Name	IARC Carcinogens:	NTP Carcinogens:	ACGIH - Carcinogens:	OSHA - Select Carcinogens:

Name	IARC Carcinogens:	NTP Carcinogens:	ACGIH - Carcinogens:	OSHA - Select Carcinogens:
Naphthalene 91-20-3	Monograph 82 [2002]	Reasonably Anticipated To Be A Human Carcinogen male rat-clear evidence; female rat-clear evidence; male mice-no evidence; female mice-some evidence	A4 - Not Classifiable as a Human Carcinogen	Present

**Notes:**

The International Agency for Research on Cancer (IARC) and the Environmental Protection Agency (EPA) have determined that naphthalene is a possible human carcinogen.

#### 4. FIRST AID MEASURES

**Eye Contact:**

Flush eyes with large amounts of tepid water for at least 15 minutes. If symptoms or irritation occur, call a physician.

**Skin Contact:**

Wash with soap and large amounts of water. Remove contaminated clothing. If symptoms or irritation occur, call a physician.

**Ingestion:**

If swallowed, do not induce vomiting and do not give liquids. Immediately call a physician.

**Inhalation:**

If affected, move person to fresh air. If breathing is difficult, administer oxygen. If not breathing or if no heartbeat, give artificial respiration or cardiopulmonary resuscitation (CPR). Immediately call a physician. If symptoms or irritation occur with any exposure, call a physician.

**NOTES TO PHYSICIAN:**

INGESTION: If ingested this material represents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended.

**Medical Conditions  
Aggravated  
By Exposure:**

Pre-existing skin conditions and respiratory disorders may be aggravated by exposures to components of this product.

#### 5. FIRE FIGHTING MEASURES

**Suitable extinguishing media:**

For small fires, Class B fire extinguishing media such as CO2, dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFF/ATC) can be used. Fire fighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.

**Specific hazards:**

This product has been determined to be a combustible liquid per the OSHA Hazard Communication Standard and should be handled accordingly. For additional fire related information, see NFPA 30 or the North American Emergency Response Guide 128.

## 5. FIRE-FIGHTING MEASURES

### Special protective equipment for firefighters:

Avoid using straight water streams. Water spray and foam (AFFF/ATC) must be applied carefully to avoid frothing and from as far a distance as possible. Avoid excessive water spray application. Keep surrounding area cool with water spray from a distance and prevent further ignition of combustible material. Keep run-off water out of sewers and water sources.

Flash point:

120-190 F

Autoignition temperature:

489 F

Flammable limits in air - lower (%):

0.7

Flammable limits in air - upper (%):

5.0

### NFPA rating:

Health: 1

Flammability: 2

Instability: 0

Other: -

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions:

Keep public away. Isolate and evacuate area. Shut off source if safe to do so. Eliminate all ignition sources. Advise authorities and National Response Center (800-424-8802) if the product has entered a water course or sewer. Notify local health and pollution control agencies, if appropriate. Contain liquid with sand or soil. Recover and return free product to proper containers. Use suitable absorbent materials such as vermiculite, sand, or clay to clean up residual liquids.

## 7. HANDLING AND STORAGE

### Handling:

Comply with all applicable EPA, OSHA, NFPA and consistent state and local requirements. Use appropriate grounding and bonding practices. Store in properly closed containers that are appropriately labeled and in a cool well-ventilated area. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. Do not cut, drill, grind or weld on empty containers since they may contain explosive residues.

Avoid repeated and prolonged skin contact. Never siphon this product by mouth. Exercise good personal hygiene including removal of soiled clothing and prompt washing with soap and water.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### PERSONAL PROTECTIVE EQUIPMENT

#### Engineering measures:

Local or general exhaust required when using at elevated temperatures that generate vapors or mists.

#### Respiratory protection:

Use approved organic vapor chemical cartridge or supplied air respirators when material produces vapors that exceed permissible limits or excessive vapors are generated. Observe respirator assigned protection factors (APFs) criteria cited in federal OSHA 1910.134. Self-contained breathing apparatus should be used for fire fighting.

#### Skin and body protection:

Neoprene, nitrile, polyvinyl alcohol (PVA), polyvinyl chloride and polyurethane gloves to prevent skin contact.

**Eye protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields.

**Hygiene measures:** No special protective clothing is normally required. Select protective clothing depending on industrial operations. Use mechanical ventilation equipment that is explosion-proof.

## 9. PHYSICAL AND CHEMICAL PROPERTIES:

**Appearance:** Red Liquid  
**Physical state (Solid/Liquid/Gas):** Liquid  
**Substance type (Pure/Mixture):** Mixture  
**Color:** Red  
**Odor:** Not applicable.  
**Molecular weight:** 180  
**pH:** Neutral  
**Boiling point/range (5-95%):** 360-550 F  
**Melting point/range:** Not determined.  
**Decomposition temperature:** Not applicable.  
**Specific gravity:** C.A. 0.8  
**Density:** 6.76 lbs/gal  
**Bulk density:** No data available.  
**Vapor density:** 4-5  
**Vapor pressure:** 1-10 mm Hg @ 100 F  
**Evaporation rate:** No data available.  
**Solubility:** Negligible  
**Solubility in other solvents:** No data available.  
**Partition coefficient (n-octanol/water):** No data available.  
**VOC content(%):** 10%  
**Viscosity:** 1.3-2.1 @ 50 C

## 10. STABILITY AND REACTIVITY

**Stability:** The material is stable at 70 F, 760 mm pressure.

**Polymerization:** Will not occur.

**Hazardous decomposition products:** Combustion produces carbon monoxide, aldehydes, aromatic and other hydrocarbons.

**Materials to avoid:** Strong oxidizers such as nitrates, perchlorates, chlorine, fluorine.

**Conditions to avoid:** Excessive heat, sources of ignition and open flames.

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity:**

**Product information:**

Name	CAS Number	Inhalation:	Dermal:	Oral:
Marathon No. 2 Ultra Low Sulfur Diesel	68476-30-2	No data available	No data available	No data available

**Toxicology Information:**

**MIDDLE DISTILLATES, PETROLEUM:** Long-term repeated (lifetime) skin exposure to similar materials has been reported to result in an increase in skin tumors in laboratory rodents. The relevance of these findings to humans is not clear at this time.

**ISOPARAFFINS:** Studies in laboratory animals have shown that long-term exposure to similar materials (isoparaffins) can cause kidney damage and kidney cancer in male laboratory rats. However, in-depth research indicates that these findings are unique to the male rat, and that these effects are not relevant to humans.

**NAPHTHALENE:** Severe jaundice, neurotoxicity (kernicterus) and fatalities have been reported in young children and infants as a result of hemolytic anemia from overexposure to naphthalene. Persons with Glucose 6-phosphate dehydrogenase (G6PD) deficiency are more prone to the hemolytic effects of naphthalene. Adverse effects on the kidney have been reported in persons overexposed to naphthalene but these effects are believed to be a consequence of hemolytic anemia, and not a direct effect. Hemolytic anemia has been observed in laboratory animals exposed to naphthalene. Laboratory rodents exposed to naphthalene vapor for 2 years (lifetime studies) developed non-neoplastic and neoplastic tumors and inflammatory lesions of the nasal and respiratory tract. Cataracts and other adverse effects on the eye have been observed in laboratory animals exposed to high levels of naphthalene. Findings from a large number of bacterial and mammalian cell mutation assays have been negative. A few studies have shown chromosomal effects (elevated levels of Sister Chromatid Exchange or chromosomal aberrations) in vitro. Naphthalene has been classified as Possibly Carcinogenic to Humans (2B) by IARC, based on findings from studies in laboratory animals.

**DIESEL EXHAUST:** Chronic inhalation studies of whole diesel engine exhaust in mice and rats produced a significant increase in lung tumors. Combustion of kerosine and/or diesel fuels produces gases and particulates which include carbon monoxide, carbon dioxide, oxides of nitrogen and/or sulfur and hydrocarbons. Significant exposure to carbon monoxide vapors decreases the oxygen carrying capacity of the blood and may cause tissue hypoxia via formation of carboxyhemoglobin.

Altered mental state, drowsiness, peripheral motor neuropathy, irreversible brain damage (so-called Petrol Sniffers Encephalopathy), delirium, seizures, and sudden death have been reported from repeated overexposure to some hydrocarbon solvents, naphthas, and gasoline.

**TARGET ORGANS:** central nervous system, skin, respiratory system, lungs, kidney, liver,

## 12. ECOTOXICOLOGICAL INFORMATION

**Mobility:**

May partition into air, soil and water.

**Ecotoxicity:**

Toxic to aquatic organisms.

**Bioaccumulation:**

Not expected to bioaccumulate in aquatic organisms.

**Persistence/Biodegradation:**

Readily biodegradable in the environment.

### 13. DISPOSAL CONSIDERATIONS

#### Cleanup Considerations:

This product as produced is not specifically listed as an EPA RCRA hazardous waste according to federal regulations (40 CFR 261). However, when discarded or disposed of, it may meet the criteria of an "characteristic" hazardous waste. This material could become a hazardous waste if mixed or contaminated with a hazardous waste or other substance(s). It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

### 14. TRANSPORT INFORMATION

49 CFR 172.101:

#### DOT:

**Transport Information:** This material when transported via US commerce would be regulated by DOT Regulations.

**Proper shipping name:** Fuel Oil, No. 2  
**UN/identification No:** NA 1993  
**Hazard Class:** 3  
**Packing group:** III  
**DOT reportable quantity (lbs):** Not applicable.

**Proper shipping name:** Fuel Oil, No. 2  
**UN/identification No:** NA 1993  
**Hazard Class:** 3  
**Packing group:** III

### 15. REGULATORY INFORMATION

#### US Federal Regulatory Information:

US TSCA Chemical Inventory Section 8(b):

This product and/or its components are listed on the TSCA Chemical Inventory.

OSHA Hazard Communication Standard:

This product has been evaluated and determined to be hazardous as defined in OSHA's Hazard Communication Standard.

#### EPA Superfund Amendment & Reauthorization Act (SARA):

##### SARA Section 302:

This product contains the following component(s) that have been listed on EPA's Extremely Hazardous Substance (EHS) List:

Name	CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs
Saturated Hydrocarbons	NA
Aromatic Hydrocarbons	NA
Unsaturated Hydrocarbons	NA
Naphthalene	NA

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**SARA Section 304:**

This product contains the following component(s) identified either as an EHS or a CERCLA Hazardous substance which in case of a spill or release may be subject to SARA reporting requirements:

Name	CERCLA/SARA - Hazardous Substances and their Reportable Quantities
Saturated Hydrocarbons	NA
Aromatic Hydrocarbons	NA
Unsaturated Hydrocarbons	NA
Naphthalene	= 100 lb final RQ = 45.4 kg final RQ

**SARA Section 311/312**

The following EPA hazard categories apply to this product:

Acute Health Hazard  
Fire Hazard  
Chronic Health Hazard

**SARA Section 313:**

This product contains the following component(s) that may be subject to reporting on the Toxic Release Inventory (TRI) From R:

Name	CERCLA/SARA 313 Emission reporting:
Saturated Hydrocarbons	None
Aromatic Hydrocarbons	None
Unsaturated Hydrocarbons	None
Naphthalene	= 0.1 % de minimis concentration

**State and Community Right-To-Know Regulations:**

The following component(s) of this material are identified on the regulatory lists below:

**Saturated Hydrocarbons**

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To Know:	Not Listed.
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed

**Aromatic Hydrocarbons**

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To Know:	Not Listed.



#### Saturated Hydrocarbons

Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed

#### Unsaturated Hydrocarbons

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To Know:	Not Listed.
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed.
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed

#### Naphthalene

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	carcinogen, initial date 4/19/02
New Jersey Right-To-Know:	sn 1322
Pennsylvania Right-To-Know:	Environmental hazard
Massachusetts Right-To Know:	Present
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Toxic; Flammable
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	carcinogen

**Saturated Hydrocarbons**

New Jersey - Environmental Hazardous  
Substances List:

Illinois - Toxic Air Contaminants

New York - Reporting of Releases Part 597 -

List of Hazardous Substances:

SN 1322 TPQ 500 lb

Present

= 1 lb RQ land/water

= 100 lb RQ air

**Canadian Regulatory Information:**

Canada DSL/NDL Inventory: This product and/or its components are listed either on the Domestic Substances List (DSL) or are exempt.

Name	Canada - WHMIS: Classifications of Substances:	Canada - WHMIS: Ingredient Disclosure:
Naphthalene	B4, D2A	1 %

**NOTE:**

Not Applicable.

**16. OTHER INFORMATION****Additional Information:**

No data available.

**Prepared by:**

Mark S. Swanson, Manager, Toxicology and Product Safety

The information and recommendations contained herein are based upon tests believed to be reliable. However, Marathon Petroleum Company LP (MPC) does not guarantee their accuracy or completeness nor shall any of this information constitute a warranty, whether expressed or implied, as to the safety of the goods, the merchantability of the goods, or the fitness of the goods for a particular purpose. Adjustment to conform to actual conditions of usage maybe required. MPC assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

**End of Safety Data Sheet**



## Material Safety Data Sheet

MSDS ID NO.: 0129MAR019  
Revision date: 12/07/2010

### 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

**Product name:** Marathon Premium Unleaded Gasoline With Ethanol  
**Synonym:** Premium Unleaded Gasoline With Alcohol; Speedway/SuperAmerica Premium Unleaded Gasoline with Ethanol; Speedway/SuperAmerica Premium Unleaded Gasoline with Alcohol  
**Chemical Family:** Petroleum Hydrocarbon  
**Formula:** Mixture

**Manufacturer:**  
Marathon Petroleum Company LP  
539 South Main Street  
Findlay OH 45840

**Other information:** 419-421-3070  
**Emergency telephone number:** 877-627-5463

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Gasoline is a complex combination of hydrocarbons consisting of paraffins, cycloparaffins, aromatic and olefinic hydrocarbons having carbon numbers predominantly greater than C3 and boiling in the range of 85-500 F. Can contain small amounts of dye and other additives (>0.02%) which are not considered hazardous at the concentrations used.

#### Product information:

Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA - Vacated PELs - Time Weighted Ave	Other:
Marathon Premium Unleaded Gasoline With Ethanol	86290-81-5	100	300 ppm TWA 500 ppm STEL		

#### Component Information:

Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA - Vacated PELs - Time Weighted Ave	Other:
Saturated Hydrocarbons	Mixture	50-77			

Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA - Vacated PELs - Time Weighted Ave	Other:
Aromatic Hydrocarbons	Mixture	9-36			
Toluene	108-88-3	0.9-13.5	20 ppm TWA	= 100 ppm TWA = 375 mg/m <sup>3</sup> TWA = 150 ppm STEL = 560 mg/m <sup>3</sup> STEL	
Ethyl Alcohol	64-17-5	5.7-10	1000 ppm STEL	=1000 ppm TWA 1900 mg/m <sup>3</sup> TWA	
Xylene	1330-20-7	1.8-9.0	100 ppm TWA 150 ppm STEL	= 100 ppm TWA = 435 mg/m <sup>3</sup> TWA = 150 ppm STEL = 655 mg/m <sup>3</sup> STEL	
1,2,4-Trimethylbenzene	95-63-6	0.9-4.5	= 25 ppm TWA	= 125 mg/m <sup>3</sup> TWA = 25 ppm TWA	
Benzene	71-43-2	0.45-3.2	Skin - potential significant contribution to overall exposure by the cutaneous route 0.5 ppm TWA 2.5 ppm STEL	= 25 ppm Ceiling = 10 ppm TWA = 50 ppm STEL	OSHA Exposure Limit as specified in 1910.1028: = 1.0 ppm TWA = 5 ppm STEL = 0.5 ppm Action Level
Hexane	110-54-3	0-2.7	Skin - potential significant contribution to overall exposure by the cutaneous route 50 ppm TWA	= 180 mg/m <sup>3</sup> TWA = 50 ppm TWA	
Ethyl Benzene	100-41-4	0.45-1.8	100 ppm TWA 125 ppm STEL	= 100 ppm TWA = 435 mg/m <sup>3</sup> TWA = 125 ppm STEL = 545 mg/m <sup>3</sup> STEL	
Unsaturated Hydrocarbons	Mixture	0.9-13.5			
Naphthalene	91-20-3	0.1-0.5	Skin - potential significant contribution to overall exposure by the cutaneous route 10 ppm TWA 15 ppm STEL	= 10 ppm TWA = 50 mg/m <sup>3</sup> TWA = 15 ppm STEL = 75 mg/m <sup>3</sup> STEL	

**Notes:**

The manufacturer has voluntarily elected to reflect exposure limits contained in OSHA's 1989 air contaminants standard in its MSDS's, even though certain of those exposure limits were vacated in 1992.

## 5. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

DANGER!

FUMES MAY CAUSE EYE AND RESPIRATORY IRRITATION.

MAY BE HARMFUL OR FATAL IF SWALLOWED

MAY CAUSE LUNG DAMAGE

OVEREXPOSURE MAY CAUSE CNS DEPRESSION

BREATHING HIGH CONCENTRATIONS CAN CAUSE IRREGULAR HEARTBEATS WHICH MAY BE FATAL

DANGER - CONTAINS BENZENE - MAY CAUSE CANCER

CAN CAUSE LEUKEMIA AND OTHER BLOOD DISORDERS.

POTENTIAL REPRODUCTIVE HAZARD

SEE TOXICOLOGICAL INFORMATION SECTION FOR MORE INFORMATION

EXTREMELY FLAMMABLE LIQUID AND VAPOR

VAPOR MAY CAUSE FLASH FIRE OR EXPLOSION

MATERIAL MAY ACCUMULATE STATIC CHARGE

STABLE

#### Inhalation:

Breathing high concentrations may be harmful.

May cause central nervous system depression or effects. Symptoms may include headache, excitation, euphoria, dizziness, incoordination, drowsiness, light-headedness, blurred vision, fatigue, tremors, convulsions, loss of consciousness, coma, respiratory arrest and death, depending on the concentration and duration of exposure.

Breathing high concentrations of this material, for example, in a confined space or by intentional abuse, can cause irregular heartbeats which can cause death. See Toxicological Effects (Section 11) for more information.

#### Ingestion:

Swallowing this material may be harmful.

May cause irritation of the mouth, throat and gastrointestinal tract.

May cause central nervous system depression or effects. Symptoms may include salivation, pain, nausea, vomiting and diarrhea. Exposure may also cause central nervous system symptoms similar to those listed under "Inhalation" (see Inhalation section).

#### Skin contact:

Contact may cause reddening, itching and inflammation.

Skin contact may cause harmful effects in other parts of the body.

#### Eye contact:

Contact may cause pain and severe reddening and inflammation of the conjunctiva.

Effects may become more serious with repeated or prolonged contact.

#### Carcinogenic Evaluation:

##### Product information:

Name	IARC Carcinogens:	NTP Carcinogens:	ACGIH - Carcinogens:	OSHA - Select Carcinogens:
Marathon Premium Unleaded Gasoline With Ethanol 86290-81-5	A2-Possible Human Carcinogen		A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans	

## 5. FIRE FIGHTING MEASURES

### Specific hazards:

This product has been determined to be a flammable liquid per the OSHA Hazard Communication Standard, and should be handled accordingly. Vapors may travel along the ground or be moved by ventilation and ignited by many sources such as pilot lights, sparks, electric motors, static discharge, or other ignition sources at locations distant from material handling. Flashback can occur along vapor trail. For additional fire related information, see NFPA 30 or the North American Emergency Response Guide 128.

### Special protective equipment for firefighters:

Avoid using straight water streams. Water may be ineffective in extinguishing low flash point fires, but can be used to cool exposed surfaces. Avoid excessive water spray application. Water spray and foam (AFFF/ATC) must be applied carefully to avoid frothing and from as far a distance as possible. Keep run-off water out of sewers and water sources.

Flash point:

-50 F

Autoignition temperature:

C.A. 495 F

Flammable limits in air - lower (%):

1.4

Flammable limits in air - upper (%):

7.6

### NFPA rating:

Health: 1

Flammability: 3

Instability: 0

Other: -

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions:

Keep public away. Isolate and evacuate area. Shut off source if safe to do so. Eliminate all ignition sources. Advise authorities and National Response Center (800-424-8802) if the product has entered a water course or sewer. Notify local health and pollution control agencies, if appropriate. Contain liquid with sand or soil. Recover and return free product to proper containers. Use suitable absorbent materials such as vermiculite, sand, or clay to clean up residual liquids.



## 7. HANDLING AND STORAGE

### Handling:

Comply with all applicable EPA, OSHA, NFPA and consistent state and local requirements. Use appropriate grounding and bonding practices. Store in properly closed containers that are appropriately labeled and in a cool well-ventilated area. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. Do not cut, drill, grind or weld on empty containers since they may contain explosive residues. Avoid skin contact. Exercise good personal hygiene including removal of soiled clothing and prompt washing with soap and water.

For use as a motor fuel only. Product should never be used as a solvent due to its flammable and potentially toxic properties. Siphoning by mouth can result in lung aspiration which can be harmful or fatal.

Portable containers of 12 gallons (45 liters) or less should never be filled while they are in or on a motor vehicle or marine craft. Static electric discharge can ignite fuel vapors when filling non-grounded containers or vehicles on trailers. Containers should be placed on the ground. The nozzle spout must be kept in contact with the container before and during the entire filling operation. Use only approved containers. A buildup of static electricity can occur upon re-entry into a vehicle during fueling especially in cold or dry climate conditions. The charge is generated by the action of dissimilar fabrics (i.e., clothing and upholstery) rubbing across each other as a person enters/exits the vehicle. A flash fire can result from this discharge if sufficient flammable vapors are present. Therefore, do not get back in your vehicle while refueling. Cellular phones and other electronic devices may have the potential to emit electrical charges (sparks). Sparks in potentially explosive atmospheres (including fueling areas such as gas stations) could cause an explosion if sufficient flammable vapors are present. Therefore, turn off cellular phones and other electronic devices when working in potentially explosive atmospheres or keep devices inside your vehicle during refueling.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### PERSONAL PROTECTIVE EQUIPMENT

<b>Engineering measures:</b>	Local or general exhaust required in an enclosed area or when there is inadequate ventilation.
<b>Respiratory protection:</b>	Approved organic vapor chemical cartridge or supplied air respirators should be worn for exposures to any components exceeding the TWA or STEL. Observe respirator assigned protection factors (APFs) criteria cited in federal OSHA 1910.134. Self-contained breathing apparatus should be used for fire fighting.
<b>Skin and body protection:</b>	Use nitrile rubber, viton or PVA gloves for repeated or prolonged skin exposure.
<b>Eye protection:</b>	No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields.
<b>Hygiene measures:</b>	No special protective clothing is normally required. Select protective clothing depending on industrial operations. Use mechanical ventilation equipment that is explosion-proof.

## 9. PHYSICAL AND CHEMICAL PROPERTIES:

<b>Appearance:</b>	Clear Or Colored Liquid
<b>Physical state (Solid/Liquid/Gas):</b>	Liquid
<b>Substance type (Pure/Mixture):</b>	Mixture
<b>Color:</b>	Clear or Colored
<b>Odor:</b>	Strong Hydrocarbon
<b>Molecular weight:</b>	100
<b>pH:</b>	Neutral
<b>Boiling point/range (5-95%):</b>	90-437 F
<b>Melting point/range:</b>	Not determined.
<b>Decomposition temperature:</b>	Not applicable.

MSDS ID NO.: 0129MAR019

Product name: Marathon Premium Unleaded  
Gasoline With Ethanol

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## 9. PHYSICAL AND CHEMICAL PROPERTIES:

Specific gravity:	0.70-0.77
Density:	5.9-6.3 lbs/gal
Bulk density:	No data available.
Vapor density:	3-4
Vapor pressure:	403-776 mm Hg @ 100 F
Evaporation rate:	No data available.
Solubility:	Negligible
Solubility in other solvents:	No data available.
Partition coefficient (n-octanol/water):	2.13-4.5
VOC content(%):	100%
Viscosity:	No data available.

## 10. STABILITY AND REACTIVITY

Stability:	The material is stable at 70 F, 760 mm pressure.
Polymerization:	Will not occur.
Hazardous decomposition products:	Combustion produces carbon monoxide, aldehydes, aromatic and other hydrocarbons.
Materials to avoid:	Strong oxidizers such as nitrates, chlorates, peroxides.
Conditions to avoid:	Excessive heat, sources of ignition, open flame.

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity:

### Product information:

Name	CAS Number	Inhalation:	Dermal:	Oral:
Marathon Premium Unleaded Gasoline With Ethanol	86290-81-5	>10,000 ppm [Dog]	>5 ml/kg [Rabbit]	>14 ml/kg [Rat]

### Toxicology Information:



**BENZENE:** Studies of Workers Overexposed to Benzene: Studies of workers exposed to benzene show clear evidence that overexposure can cause cancer and other diseases of the blood forming organs including Acute Myelogenous Leukemia (AML), and Aplastic Anemia (AA), an often fatal disease. Some studies suggest overexposure to benzene may also be associated with Myelodysplastic Syndrome (MDS). Findings from a Case-Control study of workers exposed to benzene was reported during the 2009 Benzene Symposium in Munich included an increase in Acute Myeloid Leukemias and Non-Hodgkins Lymphoid Neoplasms (NHLN) of the subtype follicular lymphoma (FL) in some occupational categories. Some studies of workers exposed to benzene have shown an association with increased rates of chromosome aberrations in circulating lymphocytes. One study of women workers exposed to benzene suggested a weak association with irregular menstruation. However, other studies of workers exposed to benzene have not demonstrated clear evidence of an effect on fertility or reproductive outcome in humans. Benzene can cross the placenta and affect the developing fetus. Cases of AA have been reported in the offspring of persons severely overexposed to benzene. Studies in laboratory animals indicate that prolonged, repeated exposure to high levels of benzene vapor can cause bone marrow suppression and cancer in multiple organ systems. Studies in laboratory animals show evidence of adverse effects on male reproductive organs following high levels of exposure but no significant effects on reproduction have been observed. Embryotoxicity has been reported in studies of laboratory animals but effects were limited to reduced fetal weight and minor skeletal variations. Benzene has been classified as a proven human carcinogen by OSHA and a Group 1 (Carcinogenic to Humans) material by IARC.

The current proposed IARC classification for benzene is summarized as follows: Sufficient evidence for Acute Myeloid Leukemia; limited evidence for Acute Lymphatic Leukemia, Chronic Lymphatic Leukemia, Non-Hodgkin Lymphoma, and Multiple Myeloma.

**NAPHTHAS:** In a large epidemiological study on over 15,000 employees at several petroleum refineries and amongst residents located near these refineries, no increased risk of kidney cancer was observed in association with gasoline exposures (a similar material). In a similar study, no increased risk of kidney cancer was observed among petroleum refinery workers, but there was a slight trend in the incidence of kidney cancers among service station employees, especially after a 30-year latency period.

**ISOPARAFFINS:** Studies in laboratory animals have shown that long-term exposure to similar materials (isoparaaffins) can cause kidney damage and kidney cancer in male laboratory rats. However, in-depth research indicates that these findings are unique to the male rat, and that these effects are not relevant to humans.

**TOLUENE:** Case studies of persons abusing toluene suggest isolated incidences of adverse effects on the fetus including birth defects. Abuse of toluene at high concentrations (e.g., glue sniffing and solvent abuse) has been associated with adverse effects on the liver, kidney and nervous system, and can cause CNS depression, cardiac arrhythmias, and death. Studies of workers indicate longterm exposure may be related to impaired color vision and hearing. Some studies of workers suggest longterm exposure may be related to neurobehavioral and cognitive changes. Some of these effects have been observed in laboratory animals following repeated exposure to high levels of toluene. Several studies of workers suggest longterm exposure may be related to small increases in spontaneous abortions and changes in some gonadotropic hormones. However, the weight of evidence does not indicate toluene is a reproductive hazard to humans. Studies in laboratory animals indicate some changes in reproductive organs following high levels of exposure, but no significant effects on mating performance or reproduction were observed. Case studies of persons abusing toluene suggest isolated incidences of adverse effects on the fetus including birth defects. Findings in laboratory animals have been largely negative. Positive findings include small increases in minor

skeletal and visceral malformations and developmental delays following very high levels of maternal exposure. Studies of workers indicate long-term exposure may be related to effects on the liver, kidney and blood, but these appear to be limited to changes in serum enzymes and decreased leukocyte counts. Adverse effects on the liver, kidney, thymus and nervous system were observed in animal studies following very high levels of exposure. The relevance of these findings to humans is not clear at this time.

**ETHYLBENZENE:** Findings from a 2-year inhalation study in rodents conducted by NTP were as follows: Effects were observed only at the highest exposure level (750 ppm). At this level the incidence of renal tumors was elevated in male rats (tubular carcinomas) and female rats (tubular adenomas). The incidence of tumors was also elevated in male mice (alveolar and bronchiolar carcinomas) and female mice (hepatocellular carcinomas). IARC has classified ethyl benzene as "possibly carcinogenic to humans" (Group 2B). Studies in laboratory animals indicate some evidence of post-implantation deaths following high levels of maternal exposure. The relevance of these findings to humans is not clear at this time. Studies in laboratory animals indicate limited evidence of renal malformations, resorptions, and developmental delays following high levels of maternal exposure. The relevance of these findings to humans is not clear at this time. Studies in laboratory animals have demonstrated evidence of ototoxicity (hearing loss) following exposure levels as low as 300 ppm for 5 days. Studies in laboratory animals indicate some evidence of adverse effects on the liver, kidney, thyroid, and pituitary gland.

**XYLENES, ALL ISOMERS:** Overexposure to xylene may cause upper respiratory tract irritation, headache, cyanosis, blood serum changes, CNS damage and narcosis. Effects may be increased by the use of alcoholic beverages. Evidence of liver and kidney impairment were reported in workers recovering from a gross overexposure. Effects from Prolonged or Repeated Exposure: Impaired neurological function was reported in workers exposed to solvents including xylene. Studies in laboratory animals have shown evidence of impaired hearing following high levels of exposure. Studies in laboratory animals suggest some changes in reproductive organs following high levels of exposure but no significant effects on reproduction were observed. Studies in laboratory animals indicate skeletal and visceral malformations, developmental delays, and increased fetal resorptions following extremely high levels of maternal exposure. The relevance of these observations to humans is not clear at this time. Adverse effects on the liver, kidney, bone marrow (changes in blood cell parameters) were observed in laboratory animals following high levels of exposure. The relevance of these observations to humans is not clear at this time.

**C9 AROMATIC HYDROCARBONS:** A developmental inhalation study was conducted in laboratory mice. Increased implantation losses, reduced fetal weights, delayed ossification and an increased incidence of cleft palate were observed at the highest exposure level (1,500 ppm). This exposure level was extremely toxic to pregnant female mice (44% mortality). Reduced fetal body weights were also observed at 500 ppm. A multi-generation reproduction inhalation study was conducted in laboratory rats. Reductions in pup weights, pup weight gain, litter size, and pup survival were observed at 1,500 ppm, an exposure level at which significant maternal toxicity was observed. Reduced pup weight gain was also observed at 500 ppm.

**NAPHTHALENE:** Severe jaundice, neurotoxicity (kernicterus) and fatalities have been reported in young children and infants as a result of hemolytic anemia from overexposure to naphthalene. Persons with Glucose 6-phosphate dehydrogenase (G6PD) deficiency are more prone to the hemolytic effects of naphthalene. Adverse effects on the kidney have been reported in persons overexposed to naphthalene but these effects are believed to be a consequence of hemolytic anemia, and not a direct effect. Hemolytic anemia has been observed in laboratory animals exposed to

naphthalene. Laboratory rodents exposed to naphthalene vapor for 2 years (lifetime studies) developed non-neoplastic and neoplastic tumors and inflammatory lesions of the nasal and respiratory tract. Cataracts and other adverse effects on the eye have been observed in laboratory animals exposed to high levels of naphthalene. Findings from a large number of bacterial and mammalian cell mutation assays have been negative. A few studies have shown chromosomal effects (elevated levels of Sister Chromatid Exchange or chromosomal aberrations) in vitro. Naphthalene has been classified as Possibly Carcinogenic to Humans (2B) by IARC, based on findings from studies in laboratory animals.

**N-HEXANE:** Long-term or repeated exposure to n-hexane can cause peripheral nerve damage. Initial symptoms are numbness of the fingers and toes. Also, motor weakness can occur in the digits, but may also involve muscles of the arms, thighs and forearms. The onset of these symptoms may be delayed for several months to a year after the beginning of exposure. Testicular atrophy and partial to full loss of the germ cell line were observed in sub-chronic high-dose inhalation studies of laboratory rodents. These effects appeared irreversible. Rodent reproduction studies have shown evidence of reduced fetal weight but no frank malformations.

**PENTANES:** Studies of pentane isomers in laboratory animals indicate exposure to extremely high levels (roughly 10 vol.%) may induce cardiac arrhythmias (irregular heartbeats) which may be serious or fatal.

**ETHANOL:** Repeated ingestion of ethanol can result in alcohol abuse, causing behavioral changes, memory loss, impaired judgement, decreased appetite, irregular heartbeats, and decreased fertility. Prolonged and repeated ingestion of ethanol has also been associated with cancers of the mouth, pharynx, esophagus and liver. Ethanol ingestion by pregnant women can cause miscarriage, low birth weight, premature birth and fetal alcohol syndrome. In males, acute and chronic alcohol ingestion may affect gonadal hormone levels. It may also affect the liver, kidney, brain, blood and cardiovascular system.

**CARBON MONOXIDE:** is a chemical asphyxiant with no warning properties (such as odor). At 400-500 ppm for 1 hour headache and dyspnea may occur. If activity is increased, symptoms of overexposure may include nausea, irritability, increased respiration, tinnitus, sweating, chest pain, confusion, impaired judgement, dizziness, weakness, drowsiness, ataxia, irregular heart beat, cyanosis and pallor. Levels in excess of 1000 ppm can result in collapse, loss of consciousness, respiratory failure and death. Extremely high concentrations (12,800 ppm) can cause immediate unconsciousness and death in 1-3 minutes. Repeated anoxia can lead to central nervous system damage and peripheral neuropathy, with loss of sensation in the fingers, amnesia, and mental deterioration and possible congestive heart failure. Damage may also occur to the fetus, lung, liver, kidney, spleen, cardiovascular system and other organs.

**COMBUSTION ENGINE EXHAUST:** Chronic inhalation studies of gasoline engine exhaust in mice, rats and hamsters did not produce any carcinogenic effects. Condensates/extracts of gasoline engine exhaust produced an increase in tumors compared to controls when testing by skin painting, subcutaneous injection, intratracheal instillation or implantation into the lungs.

Altered mental state, drowsiness, peripheral motor neuropathy, irreversible brain damage (so-called Petrol Sniffers Encephalopathy), delirium, seizures, and sudden death have been reported from repeated overexposure to some hydrocarbon solvents, naphthas, and gasoline.

**TARGET ORGANS:**

central nervous system, brain, peripheral nervous system, auditory system, respiratory system, mucous membranes, lungs, skin, eyes, cardiovascular system, heart, blood blood-forming organs, bone marrow, reproductive organs, testes, immune system, lymphatics, thymus, thyroid, pituitary gland,

**12. ECOTOXICOLOGICAL INFORMATION****Mobility:**

May partition into air, soil and water.

**Ecotoxicity:**

Toxic to aquatic organisms.

**Bioaccumulation:**

Not expected to bioaccumulate in aquatic organisms.

**Persistence/Biodegradation:**

Readily biodegradable in the environment. The presence of ethanol in this product may impede the biodegradation of benzene, toluene, ethylbenzene and xylene in groundwater, resulting in elongated plumes of these constituents.

**13. DISPOSAL CONSIDERATIONS****Cleanup Considerations:**

This product as produced is not specifically listed as an EPA RCRA hazardous waste according to federal regulations (40 CFR 261). However, when discarded or disposed of, it may meet the criteria of an "characteristic" hazardous waste. This product could also contain benzene at >0.5 ppm and could exhibit the characteristics of "toxicity" as determined by the toxicity characteristic leaching procedure (TCLP). This material could become a hazardous waste if mixed or contaminated with a hazardous waste or other substance(s). It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

**14. TRANSPORT INFORMATION**

49 CFR 172.101:

**DOT:****Transport Information:**

This material when transported via US commerce would be regulated by DOT Regulations.

**Proper shipping name:**

Gasoline

**UN/Identification No:**

UN 1203

**Hazard Class:**

3

**Packing group:**

II

**DOT reportable quantity (lbs):**

Not applicable.

**Proper shipping name:**

Gasoline

UN/Identification No:  
Hazard Class:  
Packing group:

UN 1203  
3  
II

## 15. REGULATORY INFORMATION

### US Federal Regulatory Information:

US TSCA Chemical Inventory Section 8(b):

This product and/or its components are listed on the TSCA Chemical Inventory.

OSHA Hazard Communication Standard:

This product has been evaluated and determined to be hazardous as defined in OSHA's Hazard Communication Standard.

### EPA Superfund Amendment & Reauthorization Act (SARA):

#### SARA Section 302:

This product contains the following component(s) that have been listed on EPA's Extremely Hazardous Substance (EHS) List:

Name	CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs
Saturated Hydrocarbons	NA
Aromatic Hydrocarbons	NA
Toluene	NA
Ethyl Alcohol	NA
Xylene	NA
1,2,4-Trimethylbenzene	NA
Benzene	NA
Hexane	NA
Ethyl Benzene	NA
Unsaturated Hydrocarbons	NA
Naphthalene	NA

#### SARA Section 304:

This product contains the following component(s) identified either as an EHS or a CERCLA Hazardous substance which in case of a spill or release may be subject to SARA reporting requirements:

Name	CERCLA/SARA - Hazardous Substances and their Reportable Quantities
Saturated Hydrocarbons	NA
Aromatic Hydrocarbons	NA
Toluene	= 454 kg final RQ
Ethyl Alcohol	NA
Xylene	= 100 lb final RQ = 45.4 kg final RQ
1,2,4-Trimethylbenzene	NA
Benzene	= 10 lb final RQ = 4.54 kg final RQ
Hexane	= 2270 kg final RQ = 5000 lb final RQ
Ethyl Benzene	= 1000 lb final RQ = 454 kg final RQ
Unsaturated Hydrocarbons	NA
Naphthalene	= 100 lb final RQ = 45.4 kg final RQ

**SARA Section 311/312**

The following EPA hazard categories apply to this product:

Acute Health Hazard  
 Chronic Health Hazard  
 Fire Hazard

**SARA Section 313:**

This product contains the following component(s) that may be subject to reporting on the Toxic Release Inventory (TRI) From R:

Name	CERCLA/SARA 313 Emission reporting:
Saturated Hydrocarbons	None
Aromatic Hydrocarbons	None
Toluene	= 1.0 % de minimis concentration
Ethyl Alcohol	None
Xylene	= 1.0 % de minimis concentration
1,2,4-Trimethylbenzene	= 1.0 % de minimis concentration
Benzene	= 0.1 % de minimis concentration
Hexane	= 1.0 % de minimis concentration
Ethyl Benzene	= 0.1 % de minimis concentration
Unsaturated Hydrocarbons	None
Naphthalene	= 0.1 % de minimis concentration

**State and Community Right-To-Know Regulations:**

The following component(s) of this material are identified on the regulatory lists below:

**Saturated Hydrocarbons**

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To-Know:	Not Listed.
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed

**Aromatic Hydrocarbons**

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To-Know:	Not Listed.
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed.
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed

#### Saturated Hydrocarbons

Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed

#### Toluene

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	developmental toxicity, initial date 1/1/91
New Jersey Right-To-Know:	sn 1866
Pennsylvania Right-To-Know:	Environmental hazard
Massachusetts Right-To-Know:	Present
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Toxic (skin); Flammable (skin)
Michigan critical materials register list:	= 100 lb Annual usage threshold
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	flammable - third degree; teratogen
New Jersey - Environmental Hazardous Substances List:	SN 1866 TPQ 500 lb
Illinois - Toxic Air Contaminants	Present
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	= 1 lb RQ land/water = 1000 lb RQ air

#### Ethyl Alcohol

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	developmental toxicity, initial date 10/1/87 (when in alcoholic beverages)
New Jersey Right-To-Know:	sn 0844
Pennsylvania Right-To-Know:	Present
Massachusetts Right-To-Know:	Teratogen
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Toxic; Flammable
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	carcinogen; flammable - third degree; mutagen; teratogen
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed

#### Xylene

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	sn 2014

#### Saturated Hydrocarbons

Pennsylvania Right-To-Know:	Environmental hazard
Massachusetts Right-To-Know:	Present
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Toxic (skin); Flammable (skin)
Michigan critical materials register list:	= 100 lb Annual usage threshold · all isomers
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	flammable - third degree
New Jersey - Environmental Hazardous Substances List:	SN 2014 TPQ 500 lb
Illinois - Toxic Air Contaminants	Present
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	= 1 lb RQ land/water = 1000 lb RQ air.

#### 1,2,4-Trimethylbenzene

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	sn 2716
Pennsylvania Right-To-Know:	Environmental hazard
Massachusetts Right-To-Know:	Present
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Toxic
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	SN 2716, TPQ 500 lb
Illinois - Toxic Air Contaminants	Present
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed

#### Benzene

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	carcinogen, initial date 2/27/87 developmental toxicity, initial date 12/26/97 male reproductive toxicity, initial date 12/26/97 sn 0197
New Jersey Right-To-Know:	Environmental hazard; Special hazardous substance
Pennsylvania Right-To-Know:	Carcinogen; Extraordinarily hazardous
Massachusetts Right-To-Know:	Not Listed.
Florida substance List:	Toxic (skin); Flammable (skin); Carcinogen (skin)
Rhode Island Right-To-Know:	= 100 lb Annual usage threshold
Michigan critical materials register list:	carcinogen; extraordinarily hazardous
Massachusetts Extraordinarily Hazardous Substances:	
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Present
New Jersey - Special Hazardous Substances:	carcinogen; flammable - third degree; mutagen; teratogen



#### Saturated Hydrocarbons

New Jersey - Environmental Hazardous  
Substances List:

Illinois - Toxic Air Contaminants

New York - Reporting of Releases Part 597 -  
List of Hazardous Substances:

SN 0197 TPQ 500 lb

Present

= 1 lb RQ land/water

= 10 lb RQ air

#### Hexane

Louisiana Right-To-Know:

California Proposition 65:

New Jersey Right-To-Know:

Pennsylvania Right-To-Know:

Massachusetts Right-To-Know:

Florida substance List:

Rhode Island Right-To-Know:

Michigan critical materials register list:

Massachusetts Extraordinarily Hazardous  
Substances:

California - Regulated Carcinogens:

Pennsylvania RTK - Special Hazardous  
Substances:

New Jersey - Special Hazardous Substances:

New Jersey - Environmental Hazardous  
Substances List:

Illinois - Toxic Air Contaminants

New York - Reporting of Releases Part 597 -  
List of Hazardous Substances:

Not Listed

Not Listed

sn 1340

Present

Present

Not Listed.

Toxic; Flammable

Not Listed.

Not Listed.

Not Listed

Not Listed

flammable - third degree

SN 1340 TPQ 500 lb

Present

= 1 lb RQ air

= 1 lb RQ land/water

#### Ethyl Benzene

Louisiana Right-To-Know:

California Proposition 65:

New Jersey Right-To-Know:

Pennsylvania Right-To-Know:

Massachusetts Right-To-Know:

Florida substance List:

Rhode Island Right-To-Know:

Michigan critical materials register list:

Massachusetts Extraordinarily Hazardous  
Substances:

California - Regulated Carcinogens:

Pennsylvania RTK - Special Hazardous  
Substances:

New Jersey - Special Hazardous Substances:

New Jersey - Environmental Hazardous  
Substances List:

Illinois - Toxic Air Contaminants

New York - Reporting of Releases Part 597 -  
List of Hazardous Substances:

Not Listed

carcinogen, initial date 6/11/04

sn 0851

Environmental hazard

Present

Not Listed.

Toxic; Flammable

Not Listed.

Not Listed

Not Listed

Not Listed

carcinogen; flammable - third degree

SN 0851 TPQ 500 lb

Present

= 1 lb RQ land/water

= 1000 lb RQ air

#### Unsaturated Hydrocarbons

Louisiana Right-To-Know:

California Proposition 65:

New Jersey Right-To-Know:

Pennsylvania Right-To-Know:

Massachusetts Right-To-Know:

Florida substance List:

Rhode Island Right-To-Know:

Not Listed

Not Listed

Not Listed.

Not Listed.

Not Listed.

Not Listed.

Not Listed

#### Saturated Hydrocarbons

Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed

#### Naphthalene

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	carcinogen, initial date 4/19/02
New Jersey Right-To-Know:	sn 1322
Pennsylvania Right-To-Know:	Environmental hazard
Massachusetts Right-To Know:	Present
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Toxic; Flammable
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	carcinogen
New Jersey - Environmental Hazardous Substances List:	SN 1322 TPQ 500 lb
Illinois - Toxic Air Contaminants	Present
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	= 1 lb RQ land/water = 100 lb RQ air

#### Canadian Regulatory Information:

Canada DSL/NDL Inventory: This product and/or its components are listed either on the Domestic Substances List (DSL) or are exempt.

Name	Canada - WHMIS: Classifications of Substances:	Canada - WHMIS: Ingredient Disclosure:
Toluene	B2, D2A, D2B	1 %
Ethyl Alcohol		0.1 %
Xylene	B2, D2A, D2B	
1,2,4-Trimethylbenzene	B3	0.1 %
Benzene	B2, D2A, D2B	0.1 %
Hexane	B2, D2A	1 %
Ethyl Benzene	B2, D2A, D2B	0.1 %
Naphthalene	B4, D2A	1 %

NOTE: Not Applicable.

#### 16. OTHER INFORMATION

Additional Information:  
MSDS ID NO.: 0129MAR019

No data available.  
Product name: Marathon Premium Unleaded  
Gasoline With Ethanol

**Prepared by:**

Mark S. Swanson, Manager, Toxicology and Product Safety

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**End of Safety Data Sheet**

3/24/11



## Material Safety Data Sheet

MSDS ID NO.: 0130MAR019  
Revision date: 12/07/2010

### 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

**Product name:** Marathon Regular Unleaded Gasoline With Ethanol  
**Synonym:** Regular Unleaded Gasoline With Alcohol  
**Chemical Family:** Petroleum Hydrocarbon  
**Formula:** Mixture

**Manufacturer:**  
Marathon Petroleum Company LP  
539 South Main Street  
Findlay OH 45840

**Other information:** 419-421-3070  
**Emergency telephone number:** 877-627-5463

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Gasoline is a complex combination of hydrocarbons consisting of paraffins, cycloparaffins, aromatic and olefinic hydrocarbons having carbon numbers predominantly greater than C3 and boiling in the range of 85-500 F. Can contain small amounts of dye and other additives (>0.02%) which are not considered hazardous at the concentrations used.

#### Product information:

Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA - Vacated PELs - Time Weighted Ave	Other:
Marathon Regular Unleaded Gasoline With Ethanol	86290-81-5	100	300 ppm TWA 500 ppm STEL		

#### Component Information:

Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA - Vacated PELs - Time Weighted Ave	Other:
Saturated Hydrocarbons	Mixture	50-77			

Name	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA - Vacated PELs - Time Weighted Ave	Other:
Aromatic Hydrocarbons	Mixture	9-36			
Toluene	108-88-3	0.9-13.5	20 ppm TWA	= 100 ppm TWA = 375 mg/m <sup>3</sup> TWA = 150 ppm STEL = 560 mg/m <sup>3</sup> STEL	
Unsaturated Hydrocarbons	Mixture	0.9-13.5			
Ethyl Alcohol	64-17-5	5.7-10	1000 ppm STEL	= 1000 ppm TWA 1900 mg/m <sup>3</sup> TWA	
Xylene	1330-20-7	1.8-9.0	100 ppm TWA 150 ppm STEL	= 100 ppm TWA = 435 mg/m <sup>3</sup> TWA = 150 ppm STEL = 655 mg/m <sup>3</sup> STEL	
1,2,4-Trimethylbenzene	95-63-6	0.9-4.5	= 25 ppm TWA	= 125 mg/m <sup>3</sup> TWA = 25 ppm TWA	
Benzene	71-43-2	0.45-3.2	Skin - potential significant contribution to overall exposure by the cutaneous route 0.5 ppm TWA 2.5 ppm STEL	= 25 ppm Ceiling = 10 ppm TWA = 50 ppm STEL	OSHA Exposure Limit as specified in 1910.1028: = 1.0 ppm TWA = 5 ppm STEL = 0.5 ppm Action Level
Hexane	110-54-3	0-2.7	Skin - potential significant contribution to overall exposure by the cutaneous route 50 ppm TWA	= 180 mg/m <sup>3</sup> TWA = 50 ppm TWA	
Ethyl Benzene	100-41-4	0.45-1.8	100 ppm TWA 125 ppm STEL	= 100 ppm TWA = 435 mg/m <sup>3</sup> TWA = 125 ppm STEL = 545 mg/m <sup>3</sup> STEL	
Naphthalene	91-20-3	0.1-0.5	Skin - potential significant contribution to overall exposure by the cutaneous route 10 ppm TWA 15 ppm STEL	= 10 ppm TWA = 50 mg/m <sup>3</sup> TWA = 15 ppm STEL = 75 mg/m <sup>3</sup> STEL	

**Notes:**

The manufacturer has voluntarily elected to reflect exposure limits contained in OSHA's 1989 air contaminants standard in its MSDS's, even though certain of those exposure limits were vacated in 1992.

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

DANGER!

FUMES MAY CAUSE EYE AND RESPIRATORY IRRITATION.  
MAY BE HARMFUL OR FATAL IF SWALLOWED  
MAY CAUSE LUNG DAMAGE  
OVEREXPOSURE MAY CAUSE CNS DEPRESSION  
BREATHING HIGH CONCENTRATIONS CAN CAUSE IRREGULAR HEARTBEATS WHICH MAY BE FATAL

DANGER - CONTAINS BENZENE - MAY CAUSE CANCER  
CAN CAUSE LEUKEMIA AND OTHER BLOOD DISORDERS.  
POTENTIAL REPRODUCTIVE HAZARD  
SEE TOXICOLOGICAL INFORMATION SECTION FOR MORE INFORMATION

EXTREMELY FLAMMABLE LIQUID AND VAPOR  
VAPOR MAY CAUSE FLASH FIRE OR EXPLOSION  
MATERIAL MAY ACCUMULATE STATIC CHARGE

STABLE

#### Inhalation:

Breathing high concentrations may be harmful.

May cause central nervous system depression or effects. Symptoms may include headache, excitation, euphoria, dizziness, incoordination, drowsiness, light-headedness, blurred vision, fatigue, tremors, convulsions, loss of consciousness, coma, respiratory arrest and death, depending on the concentration and duration of exposure.

Breathing high concentrations of this material, for example, in a confined space or by intentional abuse, can cause irregular heartbeats which can cause death. See Toxicological Effects (Section 11) for more information.

#### Ingestion:

Swallowing this material may be harmful.

May cause irritation of the mouth, throat and gastrointestinal tract.

May cause central nervous system depression or effects. Symptoms may include salivation, pain, nausea, vomiting and diarrhea. Exposure may also cause central nervous system symptoms similar to those listed under "Inhalation" (see Inhalation section).

#### Skin contact:

Contact may cause reddening, itching and inflammation.

Skin contact may cause harmful effects in other parts of the body.

#### Eye contact:

Contact may cause pain and severe reddening and inflammation of the conjunctiva.

Effects may become more serious with repeated or prolonged contact.

#### Carcinogenic Evaluation:

#### Product information:

Name	IARC Carcinogens:	NTP Carcinogens:	ACGIH - Carcinogens:	OSHA - Select Carcinogens:
Marathon Regular Unleaded Gasoline With Ethanol 86290-81-5	A2- Possible Human Carcinogen		A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans	

**Notes:**

The International Agency for Research on Cancer (IARC) has determined that there is inadequate evidence for the carcinogenicity of gasoline in humans. IARC determined that limited evidence of carcinogenicity in animals exists. IARC's overall evaluation of gasoline, in spite of limited carcinogenicity evidence, has resulted in the IARC designation of gasoline as possibly carcinogenic to humans (Group 2B) because gasoline contains benzene.

IARC has determined that there is inadequate evidence for the carcinogenicity of gasoline engine exhaust in humans or animals. However, IARC's overall evaluation on gasoline engine exhaust, in spite of the absence of carcinogenicity data, has resulted in the IARC designation of gasoline engine exhaust as possibly carcinogenic to humans (Group 2B) because of the presence of certain engine exhaust components.

**Component Information:**

Name	IARC Carcinogens:	NTP Carcinogens:	ACGIH - Carcinogens:	OSHA - Select Carcinogens:
Toluene 108-88-3		male rat-no evidence; female rat-no evidence; male mice-no evidence; female mice-no evidence	A4 - Not Classifiable as a Human Carcinogen	
Ethyl Alcohol 64-17-5	A2-Possible Human Carcinogen	male mice-inadequate; female mice-inadequate	A4 - Not Classifiable as a Human Carcinogen	Present
Xylene 1330-20-7		male rat-no evidence; female rat-no evidence; male mice-no evidence; female mice-no evidence	A4 - Not Classifiable as a Human Carcinogen	
Benzene 71-43-2	Supplement 7 [1987]. Monograph 29 [1982]	Known Human Carcinogen male rat-clear evidence; female rat-clear evidence; male mice-clear evidence; female mice-clear evidence	A1 - Confirmed Human Carcinogen	Present
Ethyl Benzene 100-41-4	Monograph 77 [2000]	male rat-clear evidence; female rat-some evidence; male mice-some evidence female mice-some evidence	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans	Present
Naphthalene 91-20-3	Monograph 82 [2002]	Reasonably Anticipated To Be A Human Carcinogen male rat-clear evidence; female rat-clear evidence; male mice-no evidence; female mice-some evidence	A4 - Not Classifiable as a Human Carcinogen	Present

**Notes:**

The International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), and OSHA have determined that there is sufficient evidence for the carcinogenicity of benzene in humans (Group 1A).

The International Agency for Research on Cancer (IARC) has determined that there is sufficient evidence for the carcinogenicity of alcoholic beverages (ethanol) in humans (Group 1).

The International Agency for Research on Cancer (IARC) has concluded that ethyl benzene is possibly carcinogenic to humans (Group 2B).

The International Agency for Research on Cancer (IARC) and the Environmental Protection Agency (EPA) have determined that naphthalene is a possible human carcinogen.

#### 4. FIRST AID MEASURES

**Eye Contact:**

Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. GET IMMEDIATE MEDICAL ATTENTION.

**Skin Contact:**

Immediately wash exposed skin with plenty of soap and water while removing contaminated clothing and shoes. Get medical attention if irritation persists. Place contaminated clothing in closed container until cleaned or discarded. If clothing is to be laundered, inform the person performing the operation of contaminant's hazardous properties.

**Ingestion:**

Do not induce vomiting because of danger of aspirating liquid into lungs, causing serious damage and chemical pneumonitis. If spontaneous vomiting occurs, keep head below hips to prevent aspiration and monitor for breathing difficulty. Never give anything by mouth to an unconscious person. Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

**Inhalation:**

Remove to fresh air. If not breathing, institute rescue breathing. If breathing is difficult, ensure airway is clear and give oxygen. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

**NOTES TO PHYSICIAN:**

INHALATION: This material (or a component) sensitizes the myocardium to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in individuals exposed to this material. Administration of sympathomimetic drugs should be avoided.

INGESTION: If ingested this material represents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended.

**Medical Conditions  
Aggravated  
By Exposure:**

blood (anemia), bone marrow,  
blood-forming organs, skin, respiratory system, lungs, liver, kidney,

#### 5. FIRE FIGHTING MEASURES

**Suitable extinguishing media:**

For small fires, Class B fire extinguishing media such as CO<sub>2</sub>, dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFF/ATC) can be used. Fire fighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.



## 5. FIRE FIGHTING MEASURES

### Specific hazards:

This product has been determined to be a flammable liquid per the OSHA Hazard Communication Standard, and should be handled accordingly. Vapors may travel along the ground or be moved by ventilation and ignited by many sources such as pilot lights, sparks, electric motors, static discharge, or other ignition sources at locations distant from material handling. Flashback can occur along vapor trail. For additional fire related information, see NFPA 30 or the North American Emergency Response Guide 128.

### Special protective equipment for firefighters:

Avoid using straight water streams. Water may be ineffective in extinguishing low flash point fires, but can be used to cool exposed surfaces. Avoid excessive water spray application. Water spray and foam (AFFF/ATC) must be applied carefully to avoid frothing and from as far a distance as possible. Keep run-off water out of sewers and water sources.

### Flash point:

-50 F

### Autoignition temperature:

C.A. 495 F

### Flammable limits in air - lower (%):

1.4

### Flammable limits in air - upper (%):

7.6

### NFPA rating:

Health: 1

Flammability: 3

Instability: 0

Other: -

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions:

Keep public away. Isolate and evacuate area. Shut off source if safe to do so. Eliminate all ignition sources. Advise authorities and National Response Center (800-424-8802) if the product has entered a water course or sewer. Notify local health and pollution control agencies, if appropriate. Contain liquid with sand or soil. Recover and return free product to proper containers. Use suitable absorbent materials such as vermiculite, sand, or clay to clean up residual liquids.

## 7. HANDLING AND STORAGE

### Handling:

Comply with all applicable EPA, OSHA, NFPA and consistent state and local requirements. Use appropriate grounding and bonding practices. Store in properly closed containers that are appropriately labeled and in a cool well-ventilated area. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. Do not cut, drill, grind or weld on empty containers since they may contain explosive residues. Avoid skin contact. Exercise good personal hygiene including removal of soiled clothing and prompt washing with soap and water.

For use as a motor fuel only. Product should never be used as a solvent due to its flammable and potentially toxic properties. Siphoning by mouth can result in lung aspiration which can be harmful or fatal.

Portable containers of 12 gallons (45 liters) or less should never be filled while they are in or on a motor vehicle or marine craft. Static electric discharge can ignite fuel vapors when filling non-grounded containers or vehicles on trailers. Containers should be placed on the ground. The nozzle spout must be kept in contact with the container before and during the entire filling operation. Use only approved containers. A buildup of static electricity can occur upon re-entry into a vehicle during fueling especially in cold or dry climate conditions. The charge is generated by the action of dissimilar fabrics (i.e., clothing and upholstery) rubbing across each other as a person enters/exits the vehicle. A flash fire can result from this discharge if sufficient flammable vapors are present. Therefore, do not get back in your vehicle while refueling. Cellular phones and other electronic devices may have the potential to emit electrical charges (sparks). Sparks in potentially explosive atmospheres (including fueling areas such as gas stations) could cause an explosion if sufficient flammable vapors are present. Therefore, turn off cellular phones and other electronic devices when working in potentially explosive atmospheres or keep devices inside your vehicle during refueling.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### PERSONAL PROTECTIVE EQUIPMENT

<b>Engineering measures:</b>	Local or general exhaust required in an enclosed area or when there is inadequate ventilation.
<b>Respiratory protection:</b>	Approved organic vapor chemical cartridge or supplied air respirators should be worn for exposures to any components exceeding the TWA or STEL. Observe respirator assigned protection factors (APFs) criteria cited in federal OSHA 1910.134. Self-contained breathing apparatus should be used for fire fighting.
<b>Skin and body protection:</b>	Use nitrile rubber, viton or PVA gloves for repeated or prolonged skin exposure.
<b>Eye protection:</b>	No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields.
<b>Hygiene measures:</b>	No special protective clothing is normally required. Select protective clothing depending on industrial operations. Use mechanical ventilation equipment that is explosion-proof.

## 9. PHYSICAL AND CHEMICAL PROPERTIES:

<b>Appearance:</b>	Clear Or Colored Liquid
<b>Physical state (Solid/Liquid/Gas):</b>	Liquid
<b>Substance type (Pure/Mixture):</b>	Mixture
<b>Color:</b>	Clear or Colored
<b>Odor:</b>	Strong Hydrocarbon
<b>Molecular weight:</b>	100
<b>pH:</b>	Neutral
<b>Boiling point/range (5-95%):</b>	90-437 F
<b>Melting point/range:</b>	No disponible.
<b>Decomposition temperature:</b>	Not applicable.

MSDS ID NO.: 0130MAR019

Product name: Marathon Regular Unleaded  
Gasoline With Ethanol

## 9. PHYSICAL AND CHEMICAL PROPERTIES:

Specific gravity:	0.70-0.77
Density:	5.9-6.3 lbs/gal
Bulk density:	No data available.
Vapor density:	3-4
Vapor pressure:	403-776 mm Hg @ 100 F
Evaporation rate:	No data available.
Solubility:	Negligible
Solubility in other solvents:	No data available.
Partition coefficient (n-octanol/water):	2.13-4.5
VOC content(%):	100%
Viscosity:	No data available.

## 10. STABILITY AND REACTIVITY

Stability:	The material is stable at 70 F, 760 mm pressure.
Polymerization:	Will not occur.
Hazardous decomposition products:	Combustion produces carbon monoxide, aldehydes, aromatic and other hydrocarbons.
Materials to avoid:	Strong oxidizers such as nitrates, perchlorates, chlorine, fluorine.
Conditions to avoid:	Excessive heat, sources of ignition, open flame.

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity:

### Product information:

Name	CAS Number	Inhalation:	Dermal:	Oral:
Marathon Regular Unleaded Gasoline With Ethanol	86290-81-5	>10,000 ppm [Dog]	>5 ml/kg [Rabbit]	>14 ml/kg [Rat]

### Toxicology Information:

**BENZENE:** Studies of Workers Overexposed to Benzene: Studies of workers exposed to benzene show clear evidence that overexposure can cause cancer and other diseases of the blood forming organs including Acute Myelogenous Leukemia (AML), and Aplastic Anemia (AA), an often fatal disease. Some studies suggest overexposure to benzene may also be associated with Myelodysplastic Syndrome (MDS). Findings from a Case-Control study of workers exposed to benzene was reported during the 2009 Benzene Symposium in Munich included an increase in Acute Myeloid Leukemias and Non-Hodgkins Lymphoid Neoplasms (NHLN) of the subtype follicular lymphoma (FL) in some occupational categories. Some studies of workers exposed to benzene have shown an association with increased rates of chromosome aberrations in circulating lymphocytes. One study of women workers exposed to benzene suggested a weak association with irregular menstruation. However, other studies of workers exposed to benzene have not demonstrated clear evidence of an effect on fertility or reproductive outcome in humans. Benzene can cross the placenta and affect the developing fetus. Cases of AA have been reported in the offspring of persons severely overexposed to benzene. Studies in laboratory animals indicate that prolonged, repeated exposure to high levels of benzene vapor can cause bone marrow suppression and cancer in multiple organ systems. Studies in laboratory animals show evidence of adverse effects on male reproductive organs following high levels of exposure but no significant effects on reproduction have been observed. Embryotoxicity has been reported in studies of laboratory animals but effects were limited to reduced fetal weight and minor skeletal variations. Benzene has been classified as a proven human carcinogen by OSHA and a Group 1 (Carcinogenic to Humans) material by IARC. The current proposed IARC classification for benzene is summarized as follows: Sufficient evidence for Acute Myeloid Leukemia; limited evidence for Acute Lymphatic Leukemia, Chronic Lymphatic Leukemia, Non-Hodgkin Lymphoma, and Multiple Myeloma.

**NAPHTHAS:** In a large epidemiological study on over 15,000 employees at several petroleum refineries and amongst residents located near these refineries, no increased risk of kidney cancer was observed in association with gasoline exposures (a similar material). In a similar study, no increased risk of kidney cancer was observed among petroleum refinery workers, but there was a slight trend in the incidence of kidney cancers among service station employees, especially after a 30-year latency period.

**ISOPARAFFINS:** Studies in laboratory animals have shown that long-term exposure to similar materials (isoparaffins) can cause kidney damage and kidney cancer in male laboratory rats. However, in-depth research indicates that these findings are unique to the male rat, and that these effects are not relevant to humans.

**TOLUENE:** Case studies of persons abusing toluene suggest isolated incidences of adverse effects on the fetus including birth defects. Abuse of toluene at high concentrations (e.g., glue sniffing and solvent abuse) has been associated with adverse effects on the liver, kidney and nervous system, and can cause CNS depression, cardiac arrhythmias, and death. Studies of workers indicate longterm exposure may be related to impaired color vision and hearing. Some studies of workers suggest longterm exposure may be related to neurobehavioral and cognitive changes. Some of these effects have been observed in laboratory animals following repeated exposure to high levels of toluene. Several studies of workers suggest longterm exposure may be related to small increases in spontaneous abortions and changes in some gonadotropic hormones. However, the weight of evidence does not indicate toluene is a reproductive hazard to humans. Studies in laboratory animals indicate some changes in reproductive organs following high levels of exposure, but no significant effects on mating performance or reproduction were observed. Case studies of persons abusing toluene suggest isolated incidences of adverse effects on the fetus including birth defects. Findings in laboratory animals have been largely negative. Positive findings include small increases in minor

skeletal and visceral malformations and developmental delays following very high levels of maternal exposure. Studies of workers indicate long-term exposure may be related to effects on the liver, kidney and blood, but these appear to be limited to changes in serum enzymes and decreased leukocyte counts. Adverse effects on the liver, kidney, thymus and nervous system were observed in animal studies following very high levels of exposure. The relevance of these findings to humans is not clear at this time.

**ETHYLBENZENE:** Findings from a 2-year inhalation study in rodents conducted by NTP were as follows: Effects were observed only at the highest exposure level (750 ppm). At this level the incidence of renal tumors was elevated in male rats (tubular carcinomas) and female rats (tubular adenomas). The incidence of tumors was also elevated in male mice (alveolar and bronchiolar carcinomas) and female mice (hepatocellular carcinomas). IARC has classified ethyl benzene as "possibly carcinogenic to humans" (Group 2B). Studies in laboratory animals indicate some evidence of post-implantation deaths following high levels of maternal exposure. The relevance of these findings to humans is not clear at this time. Studies in laboratory animals indicate limited evidence of renal malformations, resorptions, and developmental delays following high levels of maternal exposure. The relevance of these findings to humans is not clear at this time. Studies in laboratory animals have demonstrated evidence of ototoxicity (hearing loss) following exposure levels as low as 300 ppm for 5 days. Studies in laboratory animals indicate some evidence of adverse effects on the liver, kidney, thyroid, and pituitary gland.

**XYLENES, ALL ISOMERS:** Overexposure to xylene may cause upper respiratory tract irritation, headache, cyanosis, blood serum changes, CNS damage and narcosis. Effects may be increased by the use of alcoholic beverages. Evidence of liver and kidney impairment were reported in workers recovering from a gross overexposure. Effects from Prolonged or Repeated Exposure: Impaired neurological function was reported in workers exposed to solvents including xylene. Studies in laboratory animals have shown evidence of impaired hearing following high levels of exposure. Studies in laboratory animals suggest some changes in reproductive organs following high levels of exposure but no significant effects on reproduction were observed. Studies in laboratory animals indicate skeletal and visceral malformations, developmental delays, and increased fetal resorptions following extremely high levels of maternal exposure. The relevance of these observations to humans is not clear at this time. Adverse effects on the liver, kidney, bone marrow (changes in blood cell parameters) were observed in laboratory animals following high levels of exposure. The relevance of these observations to humans is not clear at this time.

**C9 AROMATIC HYDROCARBONS:** A developmental inhalation study was conducted in laboratory mice. Increased implantation losses, reduced fetal weights, delayed ossification and an increased incidence of cleft palate were observed at the highest exposure level (1,500 ppm). This exposure level was extremely toxic to pregnant female mice (44% mortality). Reduced fetal body weights were also observed at 500 ppm. A multi-generation reproduction inhalation study was conducted in laboratory rats. Reductions in pup weights, pup weight gain, litter size, and pup survival were observed at 1,500 ppm, an exposure level at which significant maternal toxicity was observed. Reduced pup weight gain was also observed at 500 ppm.

**NAPHTHALENE:** Severe jaundice, neurotoxicity (kernicterus) and fatalities have been reported in young children and infants as a result of hemolytic anemia from overexposure to naphthalene. Persons with Glucose 6-phosphate dehydrogenase (G6PD) deficiency are more prone to the hemolytic effects of naphthalene. Adverse effects on the kidney have been reported in persons overexposed to naphthalene but these effects are believed to be a consequence of hemolytic anemia, and not a direct effect. Hemolytic anemia has been observed in laboratory animals exposed to

naphthalene. Laboratory rodents exposed to naphthalene vapor for 2 years (lifetime studies) developed non-neoplastic and neoplastic tumors and inflammatory lesions of the nasal and respiratory tract. Cataracts and other adverse effects on the eye have been observed in laboratory animals exposed to high levels of naphthalene. Findings from a large number of bacterial and mammalian cell mutation assays have been negative. A few studies have shown chromosomal effects (elevated levels of Sister Chromatid Exchange or chromosomal aberrations) in vitro. Naphthalene has been classified as Possibly Carcinogenic to Humans (2B) by IARC, based on findings from studies in laboratory animals.

**N-HEXANE:** Long-term or repeated exposure to n-hexane can cause peripheral nerve damage. Initial symptoms are numbness of the fingers and toes. Also, motor weakness can occur in the digits, but may also involve muscles of the arms, thighs and forearms. The onset of these symptoms may be delayed for several months to a year after the beginning of exposure. Testicular atrophy and partial to full loss of the germ cell line were observed in sub-chronic high-dose inhalation studies of laboratory rodents. These effects appeared irreversible. Rodent reproduction studies have shown evidence of reduced fetal weight but no frank malformations.

**PENTANES:** Studies of pentane isomers in laboratory animals indicate exposure to extremely high levels (roughly 10 vol.%) may induce cardiac arrhythmias (irregular heartbeats) which may be serious or fatal.

**ETHANOL:** Repeated ingestion of ethanol can result in alcohol abuse, causing behavioral changes, memory loss, impaired judgement, decreased appetite, irregular heartbeats, and decreased fertility. Prolonged and repeated ingestion of ethanol has also been associated with cancers of the mouth, pharynx, esophagus and liver. Ethanol ingestion by pregnant women can cause miscarriage, low birth weight, premature birth and fetal alcohol syndrome. In males, acute and chronic alcohol ingestion may affect gonadal hormone levels. It may also affect the liver, kidney, brain, blood and cardiovascular system.

**CARBON MONOXIDE:** is a chemical asphyxiant with no warning properties (such as odor). At 400-500 ppm for 1 hour headache and dyspnea may occur. If activity is increased, symptoms of overexposure may include nausea, irritability, increased respiration, tinnitus, sweating, chest pain, confusion, impaired judgement, dizziness, weakness, drowsiness, ataxia, irregular heart beat, cyanosis and pallor. Levels in excess of 1000 ppm can result in collapse, loss of consciousness, respiratory failure and death. Extremely high concentrations (12,800 ppm) can cause immediate unconsciousness and death in 1-3 minutes. Repeated anoxia can lead to central nervous system damage and peripheral neuropathy, with loss of sensation in the fingers, amnesia, and mental deterioration and possible congestive heart failure. Damage may also occur to the fetus, lung, liver, kidney, spleen, cardiovascular system and other organs.

**COMBUSTION ENGINE EXHAUST:** Chronic inhalation studies of gasoline engine exhaust in mice, rats and hamsters did not produce any carcinogenic effects. Condensates/extracts of gasoline engine exhaust produced an increase in tumors compared to controls when testing by skin painting, subcutaneous injection, intratracheal instillation or implantation into the lungs.

Altered mental state, drowsiness, peripheral motor neuropathy, irreversible brain damage (so-called Petrol Sniffers Encephalopathy), delirium, seizures, and sudden death have been reported from repeated overexposure to some hydrocarbon solvents, naphthas, and gasoline.

**TARGET ORGANS:**

central nervous system, brain, peripheral nervous system, auditory system, respiratory system, mucous membranes, lungs, skin, eyes, cardiovascular system, heart, blood-forming organs, bone marrow, reproductive organs, testes, immune system, lymphatics, thymus, thyroid, pituitary gland,

## 12. ECOTOXICOLOGICAL INFORMATION

**Mobility:**

May partition into air, soil and water.

**Ecotoxicity:**

Toxic to aquatic organisms.

**Bioaccumulation:**

Not expected to bioaccumulate in aquatic organisms.

**Persistence/Biodegradation:**

Readily biodegradable in the environment. The presence of ethanol in this product may impede the biodegradation of benzene, toluene, ethylbenzene and xylene in groundwater, resulting in elongated plumes of these constituents.

## 13. DISPOSAL CONSIDERATIONS

**Cleanup Considerations:**

This product as produced is not specifically listed as an EPA RCRA hazardous waste according to federal regulations (40 CFR 261). However, when discarded or disposed of, it may meet the criteria of an "characteristic" hazardous waste. This product could also contain benzene at >0.5 ppm and could exhibit the characteristics of "toxicity" as determined by the toxicity characteristic leaching procedure (TCLP). This material could become a hazardous waste if mixed or contaminated with a hazardous waste or other substance(s). It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

## 14. TRANSPORT INFORMATION

49 CFR 172.101:

**DOT:**

**Transport Information:** This material when transported via US commerce would be regulated by DOT Regulations.

<b>Proper shipping name:</b>	Gasoline
<b>UN/Identification No:</b>	UN 1203
<b>Hazard Class:</b>	3
<b>Packing group:</b>	II
<b>DOT reportable quantity (lbs):</b>	Not applicable.

**Proper shipping name:**

Gasoline

UN/Identification No:  
Hazard Class:  
Packing group:

UN 1203  
3  
II

## 15. REGULATORY INFORMATION

### US Federal Regulatory Information:

US TSCA Chemical Inventory Section 8(b):

This product and/or its components are listed on the TSCA Chemical Inventory.

OSHA Hazard Communication Standard:

This product has been evaluated and determined to be hazardous as defined in OSHA's Hazard Communication Standard.

### EPA Superfund Amendment & Reauthorization Act (SARA):

#### SARA Section 302:

This product contains the following component(s) that have been listed on EPA's Extremely Hazardous Substance (EHS) List:

Name	CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs
Saturated Hydrocarbons	NA
Aromatic Hydrocarbons	NA
Toluene	NA
Unsaturated Hydrocarbons	NA
Ethyl Alcohol	NA
Xylene	NA
1,2,4-Trimethylbenzene	NA
Benzene	NA
Hexane	NA
Ethyl Benzene	NA
Naphthalene	NA

#### SARA Section 304:

This product contains the following component(s) identified either as an EHS or a CERCLA Hazardous substance which in case of a spill or release may be subject to SARA reporting requirements:

Name	CERCLA/SARA - Hazardous Substances and their Reportable Quantities
Saturated Hydrocarbons	NA
Aromatic Hydrocarbons	NA
Toluene	= 454 kg final RQ
Unsaturated Hydrocarbons	NA
Ethyl Alcohol	NA
Xylene	= 100 lb final RQ = 45.4 kg final RQ
1,2,4-Trimethylbenzene	NA
Benzene	= 10 lb final RQ = 4.54 kg final RQ
Hexane	= 2270 kg final RQ = 5000 lb final RQ
Ethyl Benzene	= 1000 lb final RQ = 454 kg final RQ
Naphthalene	= 100 lb final RQ = 45.4 kg final RQ



**SARA Section 311/312**

The following EPA hazard categories apply to this product:

Acute Health Hazard  
 Chronic Health Hazard  
 Fire Hazard

**SARA Section 313:**

This product contains the following component(s) that may be subject to reporting on the Toxic Release Inventory (TRI) From R:

Name	CERCLA/SARA 313 Emission reporting:
Saturated Hydrocarbons	None
Aromatic Hydrocarbons	None
Toluene	= 1.0 % de minimis concentration
Unsaturated Hydrocarbons	None
Ethyl Alcohol	None
Xylene	= 1.0 % de minimis concentration
1,2,4-Trimethylbenzene	= 1.0 % de minimis concentration
Benzene	= 0.1 % de minimis concentration
Hexane	= 1.0 % de minimis concentration
Ethyl Benzene	= 0.1 % de minimis concentration
Naphthalene	= 0.1 % de minimis concentration

**State and Community Right-To-Know Regulations:**

The following component(s) of this material are identified on the regulatory lists below:

**Saturated Hydrocarbons**

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To-Know:	Not Listed.
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed

**Aromatic Hydrocarbons**

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To-Know:	Not Listed.
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed

#### Saturated Hydrocarbons

Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed

#### Toluene

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	developmental toxicity, initial date 1/1/91 sn 1866
New Jersey Right-To-Know:	Environmental hazard
Pennsylvania Right-To-Know:	Present
Massachusetts Right-To-Know:	Not Listed.
Florida substance List:	Toxic (skin); Flammable (skin)
Rhode Island Right-To-Know:	= 100 lb Annual usage threshold
Michigan critical materials register list:	Not Listed
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	flammable - third degree; teratogen
New Jersey - Environmental Hazardous Substances List:	SN 1866 TPQ 500 lb
Illinois - Toxic Air Contaminants	Present
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	= 1 lb RQ land/water = 1000 lb RQ air

#### Unsaturated Hydrocarbons

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	Not Listed.
Pennsylvania Right-To-Know:	Not Listed.
Massachusetts Right-To-Know:	Not Listed.
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Not Listed
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed.
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed

#### Ethyl Alcohol

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	developmental toxicity, initial date 10/1/87 (when in alcoholic beverages)
New Jersey Right-To-Know:	sn 0844

#### Saturated Hydrocarbons

Pennsylvania Right-To-Know:	Present
Massachusetts Right-To Know:	Teratogen
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Toxic; Flammable
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	carcinogen; flammable - third degree; mutagen; teratogen
New Jersey - Environmental Hazardous Substances List:	Not Listed
Illinois - Toxic Air Contaminants	Not Listed
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	Not Listed

#### Xylene

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	sn 2014
Pennsylvania Right-To-Know:	Environmental hazard
Massachusetts Right-To Know:	Present
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Toxic (skin); Flammable (skin)
Michigan critical materials register list:	= 100 lb Annual usage threshold all isomers
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	flammable - third degree
New Jersey - Environmental Hazardous Substances List:	SN 2014 TPQ 500 lb
Illinois - Toxic Air Contaminants	Present
New York - Reporting of Releases Part 597 - List of Hazardous Substances:	= 1 lb RQ land/water = 1000 lb RQ air

#### 1,2,4-Trimethylbenzene

Louisiana Right-To-Know:	Not Listed
California Proposition 65:	Not Listed
New Jersey Right-To-Know:	sn 2716
Pennsylvania Right-To-Know:	Environmental hazard
Massachusetts Right-To Know:	Present
Florida substance List:	Not Listed.
Rhode Island Right-To-Know:	Toxic
Michigan critical materials register list:	Not Listed.
Massachusetts Extraordinarily Hazardous Substances:	Not Listed
California - Regulated Carcinogens:	Not Listed
Pennsylvania RTK - Special Hazardous Substances:	Not Listed
New Jersey - Special Hazardous Substances:	Not Listed
New Jersey - Environmental Hazardous Substances List:	SN 2716 TPQ 500 lb

## Saturated Hydrocarbons

Illinois - Toxic Air Contaminants  
New York - Reporting of Releases Part 597 -  
List of Hazardous Substances:

Present  
Not Listed

## Benzene

Louisiana Right-To-Know:  
California Proposition 65:  
  
New Jersey Right-To-Know:  
Pennsylvania Right-To-Know:  
Massachusetts Right-To-Know:  
Florida substance List:  
Rhode Island Right-To-Know:  
Michigan critical materials register list:  
Massachusetts Extraordinarily Hazardous  
Substances:  
California - Regulated Carcinogens:  
Pennsylvania RTK - Special Hazardous  
Substances:  
New Jersey - Special Hazardous Substances:  
New Jersey - Environmental Hazardous  
Substances List:  
Illinois - Toxic Air Contaminants  
New York - Reporting of Releases Part 597 -  
List of Hazardous Substances:

Not Listed  
carcinogen, initial date 2/27/87  
developmental toxicity, initial date 12/26/97  
male reproductive toxicity, initial date 12/26/97  
sn 0197  
Environmental hazard; Special hazardous substance  
Carcinogen; Extraordinarily hazardous  
Not Listed.  
Toxic (skin); Flammable (skin); Carcinogen (skin)  
= 100 lb Annual usage threshold  
carcinogen; extraordinarily hazardous  
  
Not Listed  
Present  
carcinogen; flammable - third degree; mutagen; teratogen  
SN 0197 TPQ 500 lb  
  
Present  
= 1 lb RQ land/water  
= 10 lb RQ air

## Hexane

Louisiana Right-To-Know:  
California Proposition 65:  
New Jersey Right-To-Know:  
Pennsylvania Right-To-Know:  
Massachusetts Right-To-Know:  
Florida substance List:  
Rhode Island Right-To-Know:  
Michigan critical materials register list:  
Massachusetts Extraordinarily Hazardous  
Substances:  
California - Regulated Carcinogens:  
Pennsylvania RTK - Special Hazardous  
Substances:  
New Jersey - Special Hazardous Substances:  
New Jersey - Environmental Hazardous  
Substances List:  
Illinois - Toxic Air Contaminants  
New York - Reporting of Releases Part 597 -  
List of Hazardous Substances:

Not Listed  
Not Listed  
sn 1340  
Present  
Present  
Not Listed.  
Toxic; Flammable  
Not Listed.  
Not Listed  
  
Not Listed  
Not Listed  
flammable - third degree  
SN 1340 TPQ 500 lb  
  
Present  
= 1 lb RQ air  
= 1 lb RQ land/water

## Ethyl Benzene

Louisiana Right-To-Know:  
California Proposition 65:  
New Jersey Right-To-Know:  
Pennsylvania Right-To-Know:  
Massachusetts Right-To-Know:  
Florida substance List:  
Rhode Island Right-To-Know:

Not Listed  
carcinogen, initial date 6/11/04  
sn 0851  
Environmental hazard  
Present  
Not Listed.  
Toxic; Flammable

#### Saturated Hydrocarbons

Michigan critical materials register list: Not Listed.  
Massachusetts Extraordinarily Hazardous Substances: Not Listed  
California - Regulated Carcinogens: Not Listed  
Pennsylvania RTK - Special Hazardous Substances: Not Listed  
New Jersey - Special Hazardous Substances: carcinogen; flammable - third degree  
New Jersey - Environmental Hazardous Substances List: SN 0851 TPQ 500 lb  
Illinois - Toxic Air Contaminants: Present  
New York - Reporting of Releases Part 597 - List of Hazardous Substances: = 1 lb RQ land/water  
= 1000 lb RQ air

#### Naphthalene

Louisiana Right-To-Know: Not Listed  
California Proposition 65: carcinogen, initial date 4/19/02  
  
New Jersey Right-To-Know: sn 1322  
Pennsylvania Right-To-Know: Environmental hazard  
Massachusetts Right-To-Know: Present  
  
Florida substance List: Not Listed.  
Rhode Island Right-To-Know: Toxic; Flammable  
Michigan critical materials register list: Not Listed.  
Massachusetts Extraordinarily Hazardous Substances: Not Listed  
California - Regulated Carcinogens: Not Listed  
Pennsylvania RTK - Special Hazardous Substances: Not Listed  
New Jersey - Special Hazardous Substances: carcinogen  
  
New Jersey - Environmental Hazardous Substances List: SN 1322 TPQ 500 lb  
Illinois - Toxic Air Contaminants: Present  
New York - Reporting of Releases Part 597 - List of Hazardous Substances: = 1 lb RQ land/water  
= 100 lb RQ air

#### Canadian Regulatory Information:

Canada DSL/NDSL Inventory: This product and/or its components are listed either on the Domestic Substances List (DSL) or are exempt.

Name	Canada - WHMIS: Classifications of Substances:	Canada - WHMIS: Ingredient Disclosure:
Toluene	B2, D2A, D2B	1 %
Ethyl Alcohol		0.1 %
Xylene	B2, D2A, D2B	
1,2,4-Trimethylbenzene	B3	0.1 %
Benzene	B2, D2A, D2B	0.1 %
Hexane	B2, D2A	1 %
Ethyl Benzene	B2, D2A, D2B	0.1 %
Naphthalene	B4, D2A	1 %

NOTE: Not Applicable.

#### 16. OTHER INFORMATION

##### Additional Information:

MSDS ID NO.: 0130MAR019

No data available.

Product name: Marathon Regular Unleaded  
Gasoline With Ethanol

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**Prepared by:**

Mark S. Swanson, Manager, Toxicology and Product Safety

The information and recommendations contained herein are based upon tests believed to be reliable. However, Marathon Petroleum Company LP (MPC) does not guarantee their accuracy or completeness nor shall any of this information constitute a warranty, whether expressed or implied, as to the safety of the goods, the merchantability of the goods, or the fitness of the goods for a particular purpose. Adjustment to conform to actual conditions of usage maybe required. MPC assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

**End of Safety Data Sheet**

**SUPPLEMENTAL TIER 1 INVESTIGATION  
REPORT FORM – OCTOBER 2011**

**Owner:** Schafer Investments  
Tom Schafer  
P.O. Box 376  
Ft. Loramie, OH 45845

**Facility:** Troy Marathon  
801 West Main Street  
Troy, OH 45373  
Facility ID: 55000083

*Quarter 4*



## SUPPLEMENTAL TIER 1 INVESTIGATION REPORT FORM – OCTOBER 2011

Due within one year of the occurrence of any of the following:

- Receiving analytical results, which exceed action levels, while conducting investigations pursuant to paragraph (F)(3)(b) of OAC 1301:7-9-13;
- Electing to conduct corrective actions pursuant to paragraph (B)(2) of OAC 1301:7-9-13;
- Receiving analytical results, which exceed action levels, from a closure assessment conducted pursuant to paragraph (F) of OAC 1301:7-9-12; or
- Conducting corrective action activities pursuant to paragraph (B)(3) and (B)(4) of OAC 1301:7-9-13.

### OWNER/OPERATOR AND FACILITY DATA

#### FACILITY INFORMATION:

COMPANY: Troy Marathon  
ADDRESS: 801 West Main Street  
CITY: Troy  
COUNTY: Miami  
ZIP CODE: 45373-2843  
LAT/LONG: 40.043394 / -84.21127  
FACILITY ID #: 55000083

#### HOST OWNER INFORMATION:

COMPANY: Schafer Investments  
ADDRESS: PO Box 376  
CITY, STATE: Ft. Loramie, OH  
ZIP CODE: 45845  
CONTACT PERSON: Tom Schafer  
PHONE: (937) 295-2801

#### UST OPERATOR INFORMATION:

COMPANY: Schafer Investments (same as above)  
ADDRESS: \_\_\_\_\_  
CITY, STATE: \_\_\_\_\_  
ZIP: \_\_\_\_\_  
CONTACT PERSON: \_\_\_\_\_  
PHONE: \_\_\_\_\_

#### PROPERTY OWNER INFORMATION:

COMPANY: Schafer Investments (same as above)  
ADDRESS: \_\_\_\_\_  
CITY, STATE: \_\_\_\_\_  
ZIP: \_\_\_\_\_  
CONTACT PERSON: \_\_\_\_\_  
PHONE: \_\_\_\_\_

### UNDERGROUND STORAGE TANK (UST) SYSTEM DATA

Tank #	Date Installed	Capacity	Const. Material	Tank Status	Date Removed
T0001	3/1/83	10000	Cathodically Protected Steel	CIU	
T0002	3/1/83	10000	Cathodically Protected Steel	CIU	
T0003	3/1/83	10000	Cathodically Protected Steel	CIU	
T0004	3/1/83	10000	Cathodically Protected Steel	CIU	
T0005	N/A	2000	Steel	R	11/1/93
T0006	9/1/94	4000	Cathodically Protected Steel	CIU	
T0007	N/A	2000	Bare Steel	R	12/14/2004

STATUS= OOS<90 - Out of Service < 90 days OOS>90 - Out of Service > 90 days RE - Replace R - Removed  
CIU - Currently In Use NA - Not Applicable CIS - Change in Service CIP - Closed in Place



## SITE HISTORY AND VISUAL SITE EVALUATION

The subject property is known as Troy Marathon located in a commercial area of Troy, Ohio. The site address is 801 West Main Street, Troy, Oh. and is located at the northwest corner of West Main Street and Elm Street. To the north of the subject property is an asphalt-paved driveway for a fast food franchise, across from which is the right-of-way to an alley then residential development. Further north is the Great Miami River. To the east of the subject property is Elm Street, across from which is industrial development. To the south of the subject property is West Main Street, across from which is commercial development. To the west of the subject property is a fast food restaurant.

During the excavation for a water line and roadway project along Elm Street near the subject property in the summer of 2005, workers discovered a strong odor of petroleum. BUSTR was notified on June 27, 2005 and a suspected release notice was issued to the o/o of Troy Marathon. A tank tightness test (TTT) was performed and the results were reported to BUSTR on July 13, 2005. The results of the TTT indicated a break in the line of the diesel dispensing unit. The diesel dispenser was subsequently repaired and a Tier I Delineation was completed.

## TIER 1 SOURCE INVESTIGATION

POTENTIAL SOURCE(S): A tank tightness test performed for the UST system on 7/6/ 2005, identified leaking piping at the base of the diesel dispensing unit. Subsurface investigations for the Tier I Source Investigation were focused around this area, however underground utilities and piping from the dispensers could not be positively located and soil borings were placed in areas to avoid underground utilities and piping.

POTENTIAL SOURCE AREA(S): Beneath and around the diesel dispensing unit

CHEMICALS OF CONCERN: Benzene, PAHs and TPH middle distillates

### SUBSURFACE INVESTIGATION:

SOIL BORINGS INSTALLED DURING THIS INVESTIGATION / DATE: Eight soil borings were installed on 8/4/2011 to further define the source area for subsequent IRA actions.

PREVIOUSLY INSTALLED SOIL BORINGS / DATE: Three soil borings were installed on 10/26/2005 as part of the Site Check. Four soil borings were installed on 9/06/2006 throughout the subject property.

MONITORING WELLS INSTALLED DURING THIS INVESTIGATION / DATE: No monitoring wells were installed during recent investigations.

PREVIOUSLY INSTALLED MONITORING WELLS / DATE:

The three soil borings installed on 10/26/2005 were converted to flush-mount, 1.5" - diameter pre-packed monitoring wells. Three 1" - diameter, pre-packed monitoring wells were installed on 9/16/2006 and 9/7/2006.

SOIL BORINGS / MONITORINGS WELL INSTALLED DURING CURRENT INVESTIGATION:

SB/MW	Install Date	Location	Installed With*	Total Depth	Depth to GW	Static GW	Depth to Bedrock	Screened Interval	MW Diameter
SB-080411-01	8/4/11	E/SE c/o property	DP	12'	12'	N/A	N/A	N/A	N/A
SB-080411-02	8/4/11	E/SE c/o property	DP	20'	12'	N/A	N/A	N/A	N/A
SB-080411-03	8/4/11	E/SE c/o property	DP	20'	12'	N/A	N/A	N/A	N/A
SB-080411-04	8/4/11	South end of property	DP	20'	12'	N/A	N/A	N/A	N/A
SB-080411-05	8/4/11	South end of property	DP	20'	12'	N/A	N/A	N/A	N/A
SB-080411-06	8/4/11	SW c/o property	DP	20'	12'	N/A	N/A	N/A	N/A
SB-080411-07	8/4/11	East end of property	DP	20'	12'	N/A	N/A	N/A	N/A
SB-080411-08	8/4/11	NW c/o property	DP	8'	12'	N/A	N/A	N/A	N/A
SOIL BORINGS / MONITORING WELLS INSTALLED DURING PAST INVESTIGATIONS:									
SB-4 / MW-4	9/6/06	SE c/o property	DP	20'	8.5'	8.2'	NA	9.5'-19.5'	1"
SB-5	9/6/06	East of Bldg	DP	20'	12'	NA	NA	NA	NA
SB-6	9/6/06	WSW c/o property	DP	20'	8'	NA	NA	NA	NA
SB-7	9/6/06	WSW c/o Bldg.	DP	16'	10'	NA	NA	NA	NA
SB-8	9/6/06	SE c/o property	DP	16'	9'	NA	NA	NA	NA
SB-9 / MW-5	9/7/06	East across Elm	DP	16'	9.5'	8.4'	NA	6'-16'	1"
SB-10 / MW-6	9/7/06	South across Main	DP	16'	8'	8.1'	NA	6'-16'	1"
SB-1	10/26/05	South of diesel dispenser	DP	20'	10'	8'	N/A	N/A	N/A
SB-2	10/26/05	East of diesel dispenser	DP	16'	10'	8.21'	N/A	N/A	N/A
SB-3	10/26/05	North of diesel dispenser	DP	20'	10'	8.68'	N/A	N/A	N/A
MW-1	10/26/05	South of diesel dispenser	DP	13.33'	10'	8'	N/A	8'-13'	1.5"
MW-2	10/26/05	East of diesel dispenser	DP	13.28'	10'	8.21'	N/A	8'-13'	1.5"
MW-3	10/26/05	North of diesel dispenser	DP	18.07'	10'	8.68'	N/A	8'-18'	1.5"

\*HSA/SS - hollow stem auger/split spoon, DP - direct push, HA - hand auger

## FIELD SCREENING

INSTRUMENT USED: PhotoVac 2020 Photo ionization detector  
 METHODOLOGY USED: Headspace readings taken after 30 minutes of equilibrating in a closed zip-locked baggie stored in direct sunlight.

CALIBRATION PROCEDURES: Calibrated by Pine Environmental, Hudson, Ohio  
 using 100 ppm isobutylene

Borings/Wells Installed in 2011								
SB/MW#	SB-080411-01	SB-080411-02	SB-080411-03	SB-080411-04	SB-080411-05	SB-080411-06	SB-080411-07	SB-080411-08
Depth	PID/FID Result	PID/FID Result	PID/FID Result	PID/FID Result	PID/FID Result	PID/FID Result	PID/FID Result	PID/FID Result
0-2'	NS	3.2	NS	4.5	NS	NS	NS	0.2
2-4'	3.1	3.5	3.3	4.5	NS	NS	NS	NS
4-6'	NS	NS	4.9	5.0	7.2	12.3	NS	NS
6-8'	NS	6.1	4.9	5.0	7.2	12.3	NS	NS
8-10'	69.8	NS	3.5	34.6	>1,000	35.6	>1,000	
10-12'	69.8	6.5	3.5	34.6	>1,000	35.6	>1,000	
12-14'		NS	3.6	NS	10.7	>1,000	25.8	
14-16'		NS	3.6	7.9	10.7	>1,000	25.8	
16-18'		5.3	4.5	5.7	7.3	10.6	NS	
18-20'		4.7	27.5	9.8	7.0	10.6	NS	
20-22'								
Borings/Wells Previously Installed Wells - 2006								
SB/MW#	SB-4/MW-4	SB-5	SB-6	SB-7	SB-8	SB-9/MW-5	SB-10/MW-6	
Depth	PID/FID Result	PID/FID Result	PID/FID Result	PID/FID Result	PID/FID Result	PID/FID Result	PID/FID Result	PID/FID Result
0-2'	0.2	3.0	7.1	5.7	5.3	3.6	0.1	
2-4'	0.2	3.0	7.1	5.7	5.3	NS	0.1	
4-6'	6.4	6.6	NS	8.2	32.8	0.0	0.0	
6-8'	NS	5.0	NS	13.5	143.0	NS	0.0	
8-10'	117.0	NS	11.8	12.0	1664.0	0.0	0.0	
10-12'	996.0	NS	11.1	46.4	1922.0	0.0	62.3	
12-14'	84.6	3.9	11.7	12.6	34.9	0.0	0.0	
14-16'	13.8	12.5	12.1	13.7	22.4	0.0	0.0	
16-18'	7.4	13.9	12.4					
18-20'	7.7	12.2	8.9					
20-22'								
Borings/Wells Previously Installed Wells - 2005								
SB/MW#	1	2	3					
Depth	PID/FID Result	PID/FID Result	PID/FID Result	PID/FID Result	PID/FID Result	PID/FID Result	PID/FID Result	PID/FID Result
0-2'	17.2	152	1226					
2-4'	2.7	430	No recovery					
4-6'	No recovery	40.1	No recovery					
6-8'	82.4		No recovery					

Borings/Wells Previously Installed Wells - 2005 - Continued								
SB/MW#	1	2	3					
Depth	PID/FID Result	PID/FID Result	PID/FID Result	PID/FID Result	PID/FID Result	PID/FID Result	PID/FID Result	PID/FID Result
8-10'	79.4	<b>907</b>	<b>217</b>					
10-12'	<b>323.0</b>	<b>445</b>	No recovery					
12-14'	8.9	10.8	11.7					
14-16'	5.8	8.1	11.0					
16-18'	2.8		14.6					
18-20'	0.0		6.4					
20-22'								

The soil samples that were submitted for analysis are in **BOLD**

### SOIL CLASSIFICATION

**SOIL CLASSIFICATION:** SOIL CLASS 1 SOIL CLASS 2 SOIL CLASS 3  
**SOIL SYMBOL:** GW, GP, GM, GC, SW, SP, SM, SC, ML, CL, OL, MH CH, OH, PT

MARK THE CORRECT CHOICE: SOIL CLASS 1 ☒ SOIL CLASS 2 ☐ SOIL CLASS 3 ☐

### CURRENT LABORATORY DATA

LABORATORY NAME: Pace Analytical  
ADDRESS: 7726 Moller Rd., Indianapolis, IN 46268  
PHONE #: (317) 875-5894  
CHEMICAL OF CONCERN / TEST METHOD: BTEX-8260, TPH (DIESEL)-8015, PAH-8270C  
DATE SAMPLES RECEIVED BY LAB: 8/10/11  
DATE SAMPLES ANALYZED BY LAB: 8/11, 12 & 13/2011  
TEMPERATURE OF COOLER/SAMPLES: 2.9°C

### IMMEDIATE CORRECTIVE ACTIONS

FREE PRODUCT PRESENT: YES ☐ NO ☒  
AMOUNT OF FREE PRODUCT RECOVERED TO DATE: \_\_\_\_\_

LOCATION OF FREE PRODUCT: \_\_\_\_\_

### OFF-SITE ACCESS

IS OFF-SITE ACCESS REQUIRED TO DELINEATE COCs: YES ☒ NO ☐  
(During 9/2006 investigation)  
IF YES, DESCRIBE: Off-site access was received by the City of Troy Engineer, Deborah J. Swan, P.E. to install monitoring wells in the curb lawns to the east across Elm St. and south across Main Street.

### GROUNDWATER DETERMINATION

MARK THE CORRECT CHOICE

THE SATURATED ZONE IS ASSUMED TO BE GROUND WATER: YES ☒ NO ☐

THE SATURATED ZONE IS NOT CONSIDERED GROUND WATER: YES ☐ NO ☒ N/A ☐

DEPTH TO THE SATURATED ZONE: <15' ☒ 15'-30' ☐ 31-50' ☐ > 50' ☐

**IF THE SATURATED ZONE IS NOT CONSIDERED GROUND WATER, DOCUMENTATION MUST BE PROVIDED:**

GROUND WATER FLOW DIRECTION: Southeast

### DRINKING WATER DETERMINATION

**IF ANY OF THE FOLLOWING FOUR ITEMS APPLY, GROUND WATER IS CONSIDERED DRINKING WATER:**

1.) The UST site or surrounding area is located in a Drinking Water Source Protection Area as defined by paragraph (C)(5) of OAC 1301:7-9-13: YES ☐ NO ☒

DESCRIBE: \_\_\_\_\_

2.) The UST site is in a Sensitive Area as defined by OAC 1301:7-9-09: YES ☒ NO ☐

DESCRIBE: \_\_\_\_\_

3.) A drinking water source in the ground water is identified within the surrounding area, even if the source is completed into a lower saturated zone than the saturated zone to be evaluated on an UST site. This identification shall include the information required in paragraph (I)(1)(b) of OAC 1301:7-9-13: YES ☐ NO ☒

DESCRIBE: \_\_\_\_\_

4.) A surface water body is located within three hundred feet of the UST site: YES ☒ NO ☐

DESCRIBE: The Great Miami River is located approximately 840 feet from the subject property.

**IF THE UST SITE DOES NOT MEET THE DRINKING WATER REQUIREMENTS OF THE FOUR ITEMS LISTED ABOVE, THEN GROUND WATER UNDERLYING THE UST SITE SHALL BE CONSIDERED NON-DRINKING WATER IF ANY ONE OF THE BELOW SIX ITEMS APPLY:**

- 1.) Ground water in the upper saturated zone yields less than three gallons per minute;  
YES ☐ NO ☐ Not Evaluated ☒

DESCRIBE: \_\_\_\_\_

- 2.) Ground water in the upper saturated zone has a background level of total dissolved solids of three thousand milligrams per liter or greater; YES ☐ NO ☐ Not Evaluated ☒

DESCRIBE: \_\_\_\_\_

- 3.) An UST site is located in an area where an urban setting designation pursuant to Chapter 3746 of the Revised Code and rules adopted there under has been approved by the director of Ohio Environmental Protection Agency and the owner and operator verifies that the urban setting designation remains protective of the potable use pathway in accordance with OAC 3745-300-10(D)(3)(b); YES ☐ NO ☐ Not Evaluated ☒

DESCRIBE: \_\_\_\_\_

- 4.) No potable wells are located within 300 feet of an UST site based on a physical survey and an ordinance requires a mandatory tie-in to a municipal water system for all properties in the surrounding area; YES ☐ NO ☐ Not Evaluated ☒

DESCRIBE: \_\_\_\_\_

- 5.) No potable wells are located within 300 feet of an UST site based on a physical survey and an ordinance prohibits the installation of potable water wells at all properties within the surrounding area; or YES ☐ NO ☐ Not Evaluated ☒

DESCRIBE: \_\_\_\_\_

- 6.) No potable wells are located within 300 feet of an UST site based on a physical survey and 100 percent of the properties within 300 feet of an UST site area are connected to a municipal water source or a municipal source is readily available. YES ☐ NO ☐ Not Evaluated ☒

DESCRIBE: \_\_\_\_\_

**DRINKING WATER DETERMINATION CONCLUSIONS**

Groundwater is considered drinking water: ☒

Groundwater is not considered drinking water: ☐

SITE MAXIMUM CONCENTRATIONS									
All Investigations									
	Year	SOIL				GROUND WATER			
		SB	Depth	Conc. mg/kg	Action Level	Year	MW	Conc. mg/L	Action Level
BENZENE	2005	3	0-2'	0.174	0.149	2008	2	0.191	0.005
TOLUENE	2005	3	0-2'	11.15	49.10	2005	3	0.186	1
ETHYLBENZENE	2005	3	0-2'	24.25	45.50	2008	2	0.167	0.7
TOTAL XYLENES	2005	3	0-2'	90.53	15.7	2005	2	0.606	10
MTBE				N/A		2008	4	.0049	0.04
BENZO (a) ANTHRACENE	2006			<0.20		2011	1	.00019	0.00026
BENZO (a) PYRENE	2006			<0.20		2011	1	.00031	0.0002
BENZO (b) FLUORANTHENE	2006			<0.20		2011	1	.00048	0.00017
BENZO (k) FLUORANTHENE	2006			<0.20		2011	1	.00030	0.0017
CHRYSENE	2006			<0.20				ND	0.047
DIBENZ (a,h) ANTHRACENE	2006			<0.20				ND	0.0002
INDENO (1,2,3-cd) PYRENE	2006			<0.20		2011	1	.00028	0.00022
NAPHTHALENE	2005	3	0-2'	5.640	39.80	2005	1	.046	0.14
TPH (C6-C12)				N/A			N/A	N/A	N/A
TPH (C10-C20)	2005	3	0-2'	11750	2000		N/A	N/A	N/A
TPH (C20-C34)	2011			<11.4	5000		N/A	N/A	N/A
OTHER:									
2011 Investigation									
	SOIL				GROUND WATER				
	SB	Depth	Conc. mg/kg	Action Level	MW	Conc. mg/L	Action Level		
BENZENE				0.149	2	0.0198	0.005		
TOLUENE				49.10			1		
ETHYLBENZENE	080411-05	8'-12'	9.22	45.50	2	0.0052	0.7		
TOTAL XYLENES	080411-05	8'-12'	2.16	15.7			10		
MTBE			N/A				0.04		
BENZO (a) ANTHRACENE					1	.00019	0.00026		
BENZO (a) PYRENE					1	.00031	0.0002		
BENZO (b) FLUORANTHENE					1	.00048	0.00017		
BENZO (k) FLUORANTHENE					1	.00030	0.0017		
CHRYSENE							0.047		
DIBENZ (a,h) ANTHRACENE							0.0002		
INDENO (1,2,3-cd) PYRENE					1	.00028	0.00022		
NAPHTHALENE	080411-05	8'-12'	3.21	39.80	2	.0043	0.14		
TPH (C6-C12)			N/A		N/A	N/A	N/A		
TPH (C10-C20)	080411-05	8'-12'	219	2000	N/A	N/A	N/A		
TPH (C20-C34)			N/A		N/A	N/A	N/A		
OTHER:									

2008 Investigation							
	SOIL				GROUND WATER		
	SB	Depth	Conc. mg/kg	Action Level	MW	Conc. mg/L	Action Level
BENZENE					2	0.191	0.005
TOLUENE						<0.0050	1
ETHYLBENZENE					2	.167	0.7
TOTAL XYLENES					2	.0411	10
MTBE					4	.0049	0.04
BENZO (a) ANTHRACENE							0.00026
BENZO (a) PYRENE							0.0002
BENZO (b) FLUORANTHENE							0.00017
BENZO (k) FLUORANTHENE							0.0017
CHRYSENE							0.047
DIBENZ (a,h) ANTHRACENE							0.0002
INDENO (1,2,3-cd) PYRENE							0.00022
NAPHTHALENE							0.14
TPH (C6-C12)							N/A
TPH (C10-C20)							N/A
TPH (C20-C34)							N/A
OTHER:							

2006 Investigation							
	SOIL				GROUND WATER		
	SB	Depth	Conc. mg/kg	Action Level	MW	Conc. mg/L	Action Level
BENZENE	7	10'-12'	0.037	0.149	5	0.008	0.005
TOLUENE	N/A	N/A	<0.005	49.10	N/A	<0.002	1
ETHYLBENZENE	8	6'-8'	0.148	45.50	5	0.005	0.7
TOTAL XYLENES	8	6'-8'	0.062	15.7	N/A	<0.002	10
MTBE			N/A			N/A	0.04
BENZO (a) ANTHRACENE			<0.20			<0.010	0.00026
BENZO (a) PYRENE			<0.20			<0.010	0.0002
BENZO (b) FLUORANTHENE			<0.20			<0.010	0.00017
BENZO (k) FLUORANTHENE			<0.20			<0.010	0.0017
CHRYSENE			<0.20			<0.010	0.047
DIBENZ (a,h) ANTHRACENE			<0.20			<0.010	0.0002
INDENO (1,2,3-cd) PYRENE			<0.20			<0.010	0.00022
NAPHTHALENE	8	6'-8'	4.010	39.80		<0.010	0.14
TPH (C6-C12)			N/A		N/A	N/A	N/A
TPH (C10-C20)	8	6'-8'	94	2000	N/A	N/A	N/A
TPH (C20-C34)			N/A		N/A	N/A	N/A
OTHER:							



2005 Investigation							
	SOIL				GROUND WATER		
	SB	Depth	Conc. mg/kg	Action Level	MW	Conc. mg/L	Action Level
BENZENE	3	0-2'	0.174	0.149	3	0.026	0.005
TOLUENE	3	0-2'	11.15	49.10	3	0.186	1
ETHYLBENZENE	3	0-2'	24.25	45.50	3	0.057	0.7
TOTAL XYLENES	3	0-2'	90.53	15.7	3	0.606	10
MTBE			N/A			N/A	
BENZO (a) ANTHRACENE			ND			ND	
BENZO (a) PYRENE			ND			ND	
BENZO (b) FLUORANTHENE			ND			ND	
BENZO (k) FLUORANTHENE			ND			ND	
CHRYSENE			ND			ND	
DIBENZ (a,h) ANTHRACENE			ND			ND	
INDENO (1,2,3-cd) PYRENE			ND			ND	
NAPHTHALENE	3	0-2'	5.640	39.80	1	.046	0.14
TPH (C6-C12)			N/A		N/A	N/A	N/A
TPH (C10-C20)	3	0-2'	11750	2000	N/A	N/A	N/A
TPH (C20-C34)			N/A		N/A	N/A	N/A
OTHER:							

## MISCELLANEOUS DATA

### THE FOLLOWING ITEMS MUST BE ATTACHED:

***ADDITIONAL INFORMATION WHICH IS REQUIRED BY OAC 1301:7-9-13 OR ADDITIONAL INFORMATION WHICH CLARIFIES THE INVESTIGATION ACTIVITIES SHALL BE SUBMITTED AS APPENDICIES TO THIS REPORT.***

### TABLES:

TABLE 1 - SOIL ANALYTICAL RESULTS COMPARED TO ACTION & DELINEATION LEVELS  
TABLE 2 - GROUND WATER ANALYTICAL RESULTS TO ACTION & DELINEATION LEVELS  
TABLE 3 - MONITORING WELL GAUGING DATA

### FIGURES:

FIGURE 1 - TOPOGRAPHIC MAP  
FIGURE 2 - SITE MAP  
FIGURE 3A - SITE MAP WITH MONITORING WELLS AND HISTORICAL SOIL CONCENTRATIONS  
FIGURE 3B - SITE MAP WITH MONITORING WELLS AND 2011 SOIL CONCENTRATIONS  
FIGURE 4A - SITE MAP WITH MONITORING WELLS AND HISTORICAL GROUND WATER CONCENTRATIONS  
FIGURE 4B - SITE MAP WITH MONITORING WELLS AND 2011 GROUND WATER CONCENTRATIONS  
FIGURE 5 - GROUND WATER CONTOUR MAP

### APPENDIX:

APPENDIX A - SOIL BORING LOGS / MONITORING WELL CONSTRUCTION DIAGRAMS  
APPENDIX B - MONITORING WELL DEVELOPMENT & SAMPLING FORMS  
APPENDIX C - SOIL CLASSIFICATION FORM  
APPENDIX D - LABORATORY ANALYTICAL REPORT  
APPENDIX E - CHAIN OF CUSTODY  
APPENDIX F - DRINKING WATER EVALUATION SUPPORTING DOCUMENTATION- N/A

The Tier 1 Investigation Report Form must be signed by the UST owner/operator. The owner/operator is responsible for ensuring all data is accurate, and the form is legible and complete.

**OWNER / OPERATOR SIGNATURE:** \_\_\_\_\_

**PRINT NAME:** Tom Schafer

**DATE:** \_\_\_\_\_

### FORM PREPARED BY:

NAME: Jon Zanders/Becky Mallott  
COMPANY: Stone Environmental  
ADDRESS: 748-A Green Crest Dr., Westerville, OH 43081  
PHONE #: 614-865-1874  
EMAIL: jonzanders@stoneenvironmental.com

## CHEMICALS OF CONCERN AND RECOMMENDED LABORATORY METHODS

Analytical Group 1 - light distillate products - including unleaded gasoline, leaded gasoline and aviation gasoline;

Analytical Group 2 - middle distillate products - including diesel, light fuel oils, stoddard solvents, mineral spirits, kerosene, and jet fuels;

Analytical Group 3 - heavy petroleum distillate products - including, but not limited to, lubricating and hydraulic oils;

Analytical Group 4 - used oil

Analytical Group 5 - unknown petroleum products or petroleum products other than those listed in analytical groups 1, 2, 3 and 4. Additional chemical(s) of concern and analytical methods must be selected, as appropriate, based on reasonably available information related to the product stored, including additives, impurities and degradation products. In addition, chemical(s) of concern should be selected based on their toxicity, mobility, and persistence in the environment. The owners and operators shall consult with the fire marshal for the appropriate chemical(s) of concern for products not in analytical group 1, 2, 3 and 4.

Analytical Group Number		1	2	3	4	5	Analytical Methods
		Light Distillates	Middle Distillates	Heavy Distillates	Used Oil	Unknowns & Others	
Chemical							
Aromatics	Benzene	x	x		x		8021/8260
	Toluene	x	x		x		
	Ethylbenzene	x	x		x		
	o, m and p-Xylenes	x	x		x		
Additives	Methyl tertiary-butyl ether (MTBE)	x			x		
Polynuclear Aromatics	Benzo(a)anthracene		x	x	x		8270/8310
	Benzo(a)pyrene		x	x	x		
	Benzo(b)fluoranthene		x	x	x		
	Benzo(k)fluoranthene		x	x	x		
	Chrysene		x	x	x		
	Dibenz(a,h)anthracene		x	x	x		
	Indeno(1,2,3-c,d)pyrene		x	x	x		
	Naphthalene		x	x	x		
Chlorinated Hydrocarbons	Volatile Organic Hydrocarbons				x		8260
Total Petroleum Hydrocarbons *1	TPH (C6 - C12)	x			x		8015
	TPH (C10 - C20)		x		x		
	TPH (C20 - C34)			x	x		
Varies based on UST contents				x	x	*2	

\*1 TPH analysis is not required for ground water samples.

\*2 Additional chemical(s) of concern and analytical methods must be selected, as appropriate, based on reasonably available information related to the product stored, including additives, impurities and degradation products. In addition, chemical(s) of concern should be selected based on their toxicity, mobility, and persistence in the environment. The owners and operators shall consult with the fire marshal for the appropriate chemical(s) of concern for products not in analytical group 1, 2, 3 and 4.

## **TABLES**

- 1 - SOIL CONCENTRATIONS COMPARED TO ACTION & DELINEATION LEVELS**
- 2 - GROUNDWATER CONCENTRATIONS COMPARED TO ACTION & DELINEATION LEVELS**
- 3 - MONITORING WELL GAUGING DATA**

**TABLE 1 - SOIL CONCENTRATIONS COMPARED TO ACTION & DELINEATION LEVELS**

Troy Marathon - BUSTR Facility ID 55000083

		Benzene	Benzo(a)Anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Ethylbenzene	Ideno(1,2,3-cd)pyrene	Napthalene	Toluene	Middle Distillate Fraction (C10-C20)	Heavy Distillate Fraction (C20-C34)	Xylenes (Total)
All Units = mg/kg															
Direct Contact Residential		9.8	11	1.1	11	110	1100	1.1	1500	11	54	590			660
TPH Soil Class 1													2000	5000	
Soil to Indoor Air Residential		1.04	476000.00	245000.00	165000.00	>1E^+6	>1E^+6	>1E^+6	199.00	>1E^+6	54.00	61.30			15.70
Soil to Outdoor Air Residential		32.70	>1E^+6	>1E^+6	>1E^+6	>1E^+6	>1E^+6	>1E^+6	6280.00	>1E^+6	1710.00	1900.00			494.00
Soil to Drinking Water Leaching Residential		0.149	22.20	50.60	55.30	501.00	4410.00	94.00	45.50	244.00	39.80	49.10			469.00
Delineation		1.04	11	1.1	11	110	1100	1.1	199.00	11	54	61.30			
Well ID	Sample Date														
MW-1 6'-8'	10/1/2005	<0.005	<.15	<.15	<.15	<.15	<.15	<.15	<0.005	<.15	0.425	<0.005	744		<0.005
MW-1 10'-12'	10/1/2005	0.037	<.15	<.15	<.15	<.15	<.15	<.15	0.993	<.15	<.15	<0.005	3519		0.298
MW-2 2'-4'	10/1/2005	<0.005	<.15	<.15	<.15	<.15	<.15	<.15	0.265	<.15	2.725	<0.005	1038		0.036
MW-2 2'-10'	10/1/2005	<0.005	<.15	<.15	<.15	<.15	<.15	<.15	4.00	<.15	5.584	<0.005	10440		33.68
MW-3 0'-2'	10/1/2005	0.174	<.15	<.15	<.15	<.15	<.15	<.15	24.25	<.15	5.64	11.15	11750		90.53
MW-3 8'-10'	10/1/2005	<0.005	<.15	<.15	<.15	<.15	<.15	<.15	0.211	<.15	0.723	0.28	399		1.32
SB-10 8'-10'	9/1/2006	<0.005	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.2	<0.2	<0.005	<20		<0.005
SB-4 14'-16'	9/1/2006	<0.005	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.2	<0.2	<0.005	<20		<0.005
SB-4 8'-10'	9/1/2006	<0.005	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.2	<0.2	<0.005	<20		<0.005
SB-4 10'-12'	9/1/2006	<0.005	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.2	<0.2	<0.005	<20		<0.005
SB-5 10'-12'	9/1/2006	<0.005	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.2	<0.2	<0.005	<20		<0.005
SB-6 6'-8'	9/1/2006	<0.005	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.2	<0.2	<0.005	<20		<0.005
SB-7 8'-10'	9/1/2006	<0.005	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.2	<0.2	<0.005	<20		<0.005
SB-7 10'-12'	9/1/2006	0.037	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.2	<0.2	<0.005	<20		<0.005
SB-8 6'-8'	9/1/2006	0.006	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.148	<0.2	4.01	<0.005	94		0.062
SB-8 8'-10'	9/1/2006	<0.005	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.2	<0.2	<0.005	<20		<0.005
SB-9 8'-10'	9/1/2006	<0.005	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.005	<0.2	<0.2	<0.005	<20		<0.005
SB-080411-02 10-12	8/4/2011	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	0.0115	<0.0054	26.5	<10.7	<0.011
SB-080411-02 6-8	8/4/2011	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<10.5	<10.5	<0.011
SB-080411-03 18-20	8/4/2011	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<11.0	<11.0	<0.011
SB-080411-03 4-8	8/4/2011	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<10.5	<10.5	<0.011
SB-080411-04 18-20	8/4/2011	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<11.2	<11.2	<0.011
SB-080411-04 8-12	8/4/2011	<0.273	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.273	<0.0055	<0.0055	<0.273	48.2	<10.9	<0.546
SB-080411-05 12-16	8/4/2011	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<11.1	<11.1	<0.011
SB-080411-05 8-12	8/4/2011	<0.599	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	9.22	<0.0060	3.21	<0.599	219	<12.0	2.16
SB-080411-06 12-14	8/4/2011	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<11.6	<11.6	<0.012
SB-080411-06 14-16	8/4/2011	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<10.9	<10.9	<0.011
SB-080411-07 12-16	8/4/2011	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<11.0	<11.0	<0.011
SB-080411-07 8-12	8/4/2011	<0.561	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	6.25	<0.0056	0.622	<0.561	79.6	<11.2	<1.12
SB-080411-08 2-4	8/4/2011	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	0.0072	<0.0057	<11.4	<11.4	<0.011

TABLE 2 - GROUNDWATER CONCENTRATIONS COMPARED TO BUSTR ACTION LEVELS

Troy Marathon - BUSTR Facility ID 55000083

All Units = mg/L		Benzene	Benzo(a)Anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Ethylbenzene	Ideno(1,2,3-cd)pyrene	MTBE	Napthalene	Toluene	Xylenes (Total)
Groundwater Ingestion		0.005	0.00026	0.0002	0.00017	0.0017	0.047	0.0002	0.7	0.00022	0.04	0.14	1	10
Groundwater to Outdoor Air Soil Class 1 Residential		818	24800	7680	2020	>1E^+6	212000	78400	82700	123000	758000	1200	32500	8560
Groundwater to Indoor Air Residential <15 Feet		4.28	667	127	67.20	23800	7150	353	381	2020	12400	22.20	155	41.30
Delineation		0.428	66.7	12.7	6.72	2380	715	35.3	38.1	202	1240	2.22	15.5	
Well ID	Sample Date													
MW-1	10/1/2005	<.002	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.004	<0.01		0.046	<.002	<.002
MW-1	1/22/2008	<b>0.0062</b>							0.0134		<0.0040		<0.0050	<0.010
MW-1	8/5/2011	<0.0050	0.00019	0.00031	0.00048	0.00030	<0.00052	<0.00010	<0.0050	0.00028		<0.0010	<0.0050	<0.010
MW-2	10/1/2005	<b>0.011</b>	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.009	<0.01		<0.01	<.002	0.003
MW-2	1/22/2008	<b>0.191</b>							0.167		<0.0040		<0.0050	0.0411
MW-2	8/5/2011	<b>0.0198</b>	<0.00010	<0.00010	<0.00010	<0.00010	<0.00052	<0.00010	0.0052	<0.00010		0.0043	<0.0050	<0.010
MW-3	10/1/2005	<b>0.026</b>	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.057	<0.01		<0.01	0.186	0.606
MW-3	1/22/2008	0.0023							<0.0050		<0.0040		<0.0050	<0.010
MW-3	8/5/2011	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00052	<0.00010	<0.0050	<0.00010		<0.0010	<0.0050	<0.010
MW-4	9/1/2006	<0.002	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	<0.01		<0.01	<0.002	<0.002
MW-4	1/22/2008	<b>0.0424</b>							0.0124		0.0049		<0.0050	0.0254
MW-4	8/5/2011	<0.0050	<0.00011	<0.00011	<0.00011	<0.00011	<0.00053	<0.00011	<0.0050	<0.00011		<0.0011	<0.0050	<0.010
MW-5	9/1/2006	<b>0.008</b>	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.005	<0.01		<0.01	<0.002	<0.002
MW-5	8/5/2011	<0.0050	<0.00011	<0.00011	<0.00011	<0.00011	<0.00053	<0.00011	<0.0050	<0.00011		<0.0011	<0.0050	<0.010
MW-6	9/1/2006	<0.002	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	<0.01		<0.01	<0.002	<0.002
MW-6	8/5/2011	<0.0050	<0.00010	<0.00010	<0.00010	<0.00010	<0.00052	<0.00010	<0.0050	<0.00010		<0.0010	<0.0050	<0.010
SB-5	9/1/2006	<0.002	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	<0.01		<0.01	<0.002	<0.002

Table 3 - MONITORING WELL GAUGING DATA

Site

Address

107 Murathan

801 West Main St., Troy, OH.

1. 11. 11.

[illegible]

DTW - Depth to Water

DTB - Depth to Bottom

DTP - Depth to Free Product

## **FIGURES**

**FIGURE 1 - TOPOGRAPHIC MAP**

**FIGURE 2 - SITE MAP**

**FIGURE 3A - SITE MAP WITH MONITORING WELLS AND HISTORICAL SOIL CONCENTRATIONS**

**FIGURE 3B - SITE MAP WITH MONITORING WELLS AND 2011 SOIL CONCENTRATIONS**

**FIGURE 4A - SITE MAP WITH MONITORING WELLS AND HISTORICAL GROUND WATER  
CONCENTRATIONS**

**FIGURE 4B - SITE MAP WITH MONITORING WELLS AND 2011 GROUND WATER  
CONCENTRATIONS**

**FIGURE 5 - GROUND WATER CONTOUR MAP**



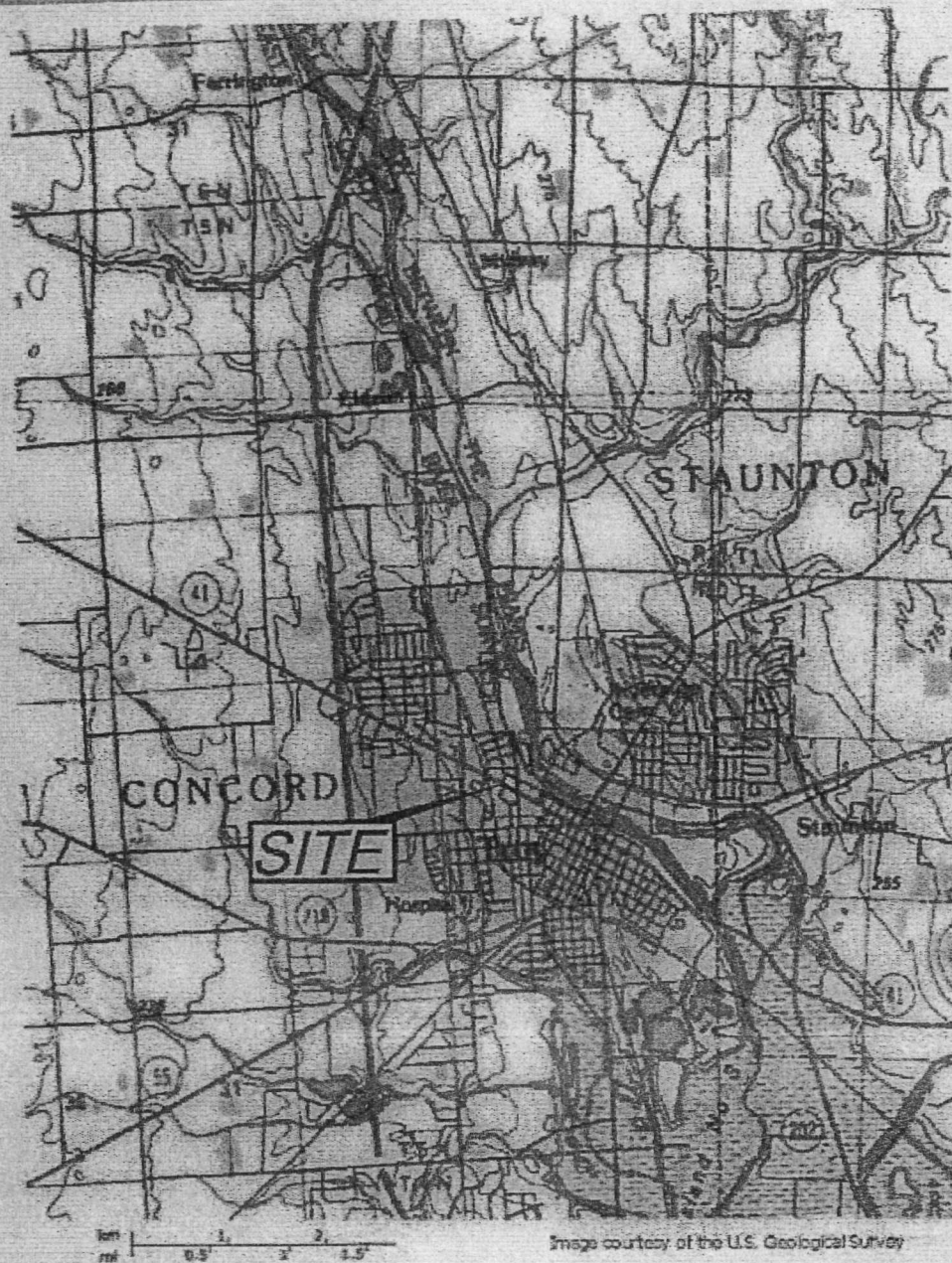


FIGURE 1

**TOPOGRAPHICAL MAP**  
**TROY MARATHON**  
**SCHAFER OIL COMPANY**  
**801 WEST MAIN STREET**  
**TROY, OHIO**

**Stone Environmental**  
 Engineering & Science, Inc.  
 6460 Busch Blvd., Suite 105  
 Columbus, Ohio 43229  
 614-888-8041 Fax 614-888-8043

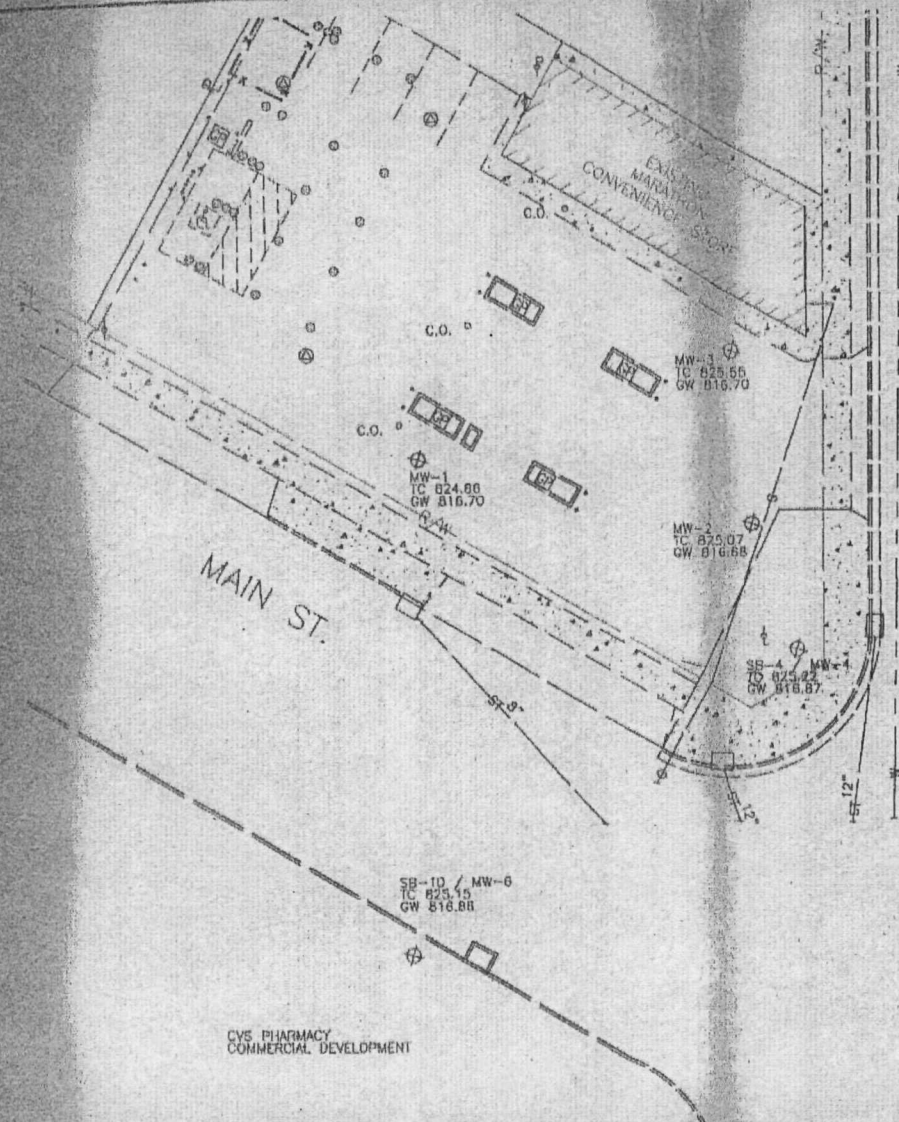


FIGURE 2

SITE MAP  
TROY MARATHON  
SCHAFFER OIL COMPANY  
TROY, OHIO

Stone Environmental  
Engineering & Science, Inc.  
740-A GREEN CREST DRIVE  
WESTERVILLE, OHIO 43081  
614-865-1874 Fax 614-865-1873



SCALE	1" = 20'	DRAWN	KR	CHECKED	JAZ
DATE	SEPTEMBER 2011	JOB NO.	C223-13-11		



2011 SAMPLE LOCATION

NOTE: RESULTS ARE SHOWN ONLY FOR THOSE ABOVE THE DETECTION LEVEL.

ALL SOIL CONCENTRATIONS ARE mg/kg.  
ALL EXCEEDANCES ARE SHOWN **BOLD AND ITALIC**.  
EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE.

LEGEND	
B	Benzene
E	Ethylbenzene
N	Napthalene
T	Toluene
TPH-M	TPH (C10-C20)
TPH	TPH
X	Xylene (Total)

CVS PHARMACY  
COMMERCIAL DEVELOPMENT

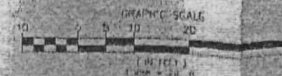
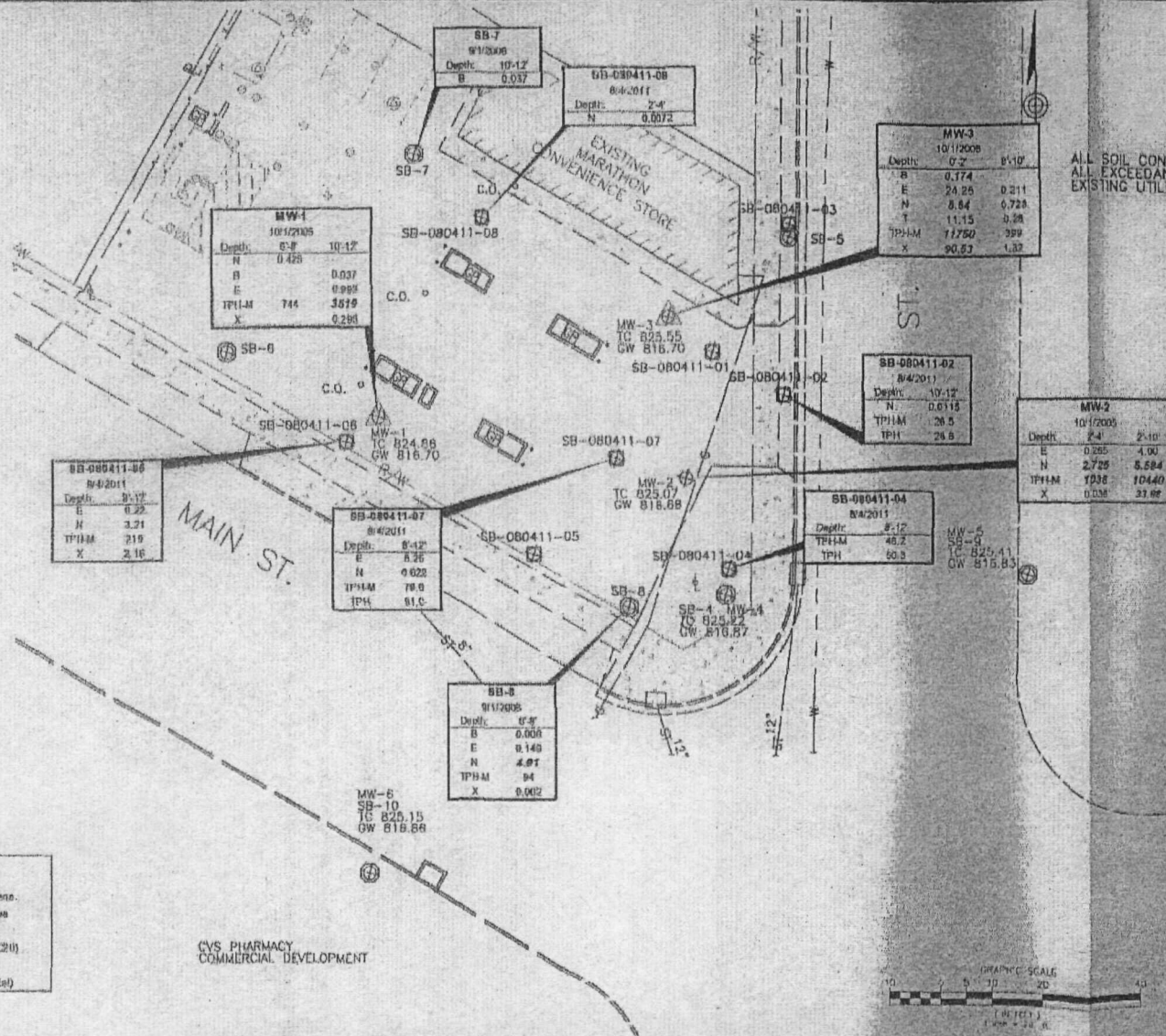


FIGURE 3A

HISTORICAL SOIL CONCENTRATIONS  
TROY MARATHON  
SCHAFFER OIL COMPANY  
TROY, OHIO

Stops Environmental  
Engineering & Science, Inc.  
740 A GREEN CREST DRIVE  
WILLOUGHVILLE, OHIO 44095  
214-885-1874 Fax 214-885-1877

SCALE	1"=20'	DRAWN	CP	CHECKED	JAZ
DATE	SEPTEMBER 2011	JOB NO.	6225-15-11		



2011 SAMPLE LOCATION

NOTE: ALL 2011 SOIL BORES WERE SAMPLED FOR THE SAME ANALYTES; RESULTS ARE SHOWN ONLY FOR THOSE ABOVE THE DETECTION LEVEL.

LEGEND	
B	Benzene
E	Ethylbenzene
N	Naphthalene
T	Toluene
TPH-M	TPH (M-C20)
TPH	TPH
X	Xylene (Total)

CYS PHARMACY  
COMMERCIAL DEVELOPMENT

HOBART, INC.  
INDUSTRIAL DEVELOPMENT

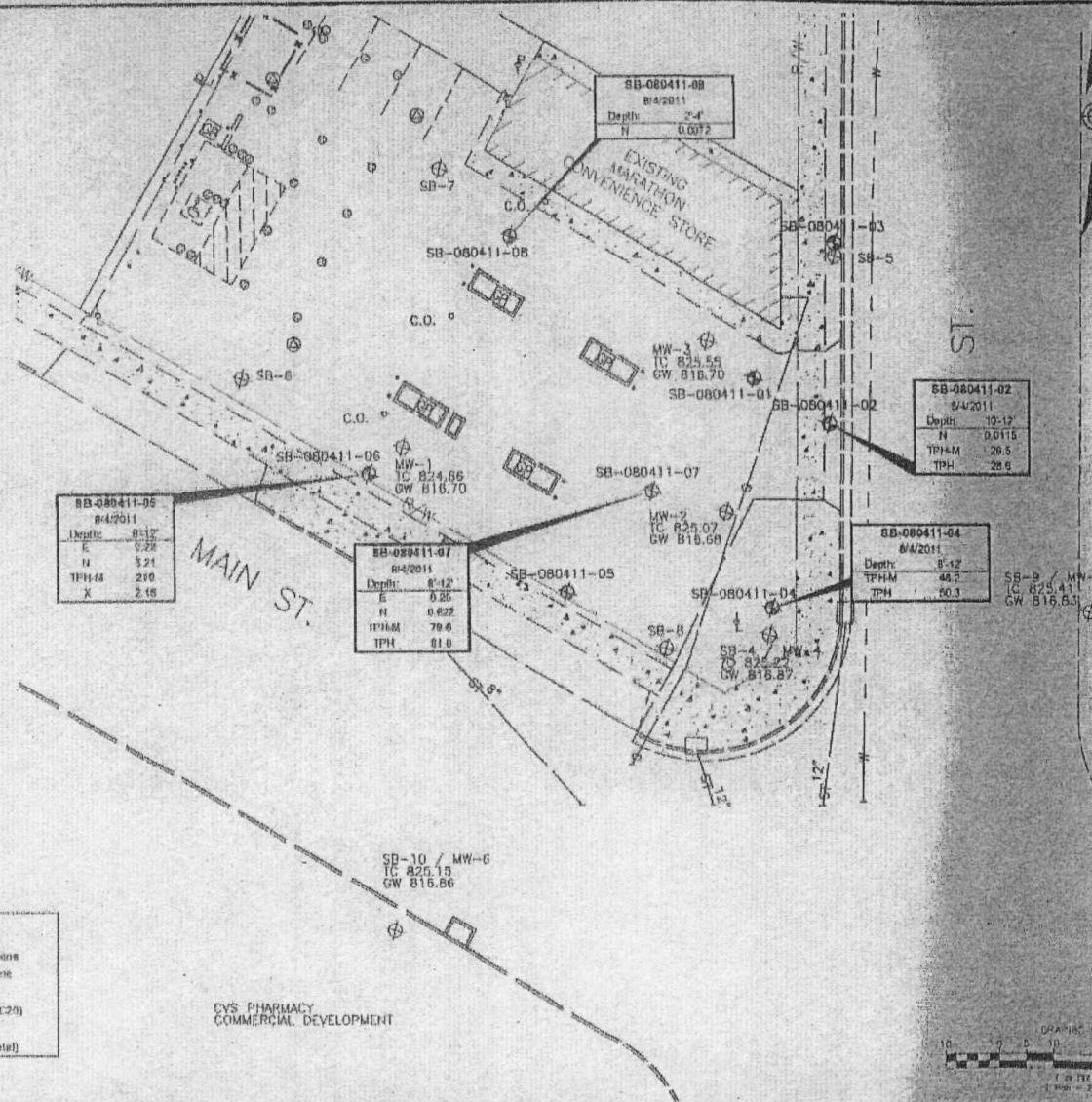
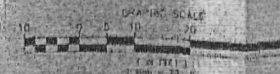
ALL SOIL CONCENTRATIONS ARE mg/kg.  
ALL EXCEEDANCES ARE SHOWN **BOLD AND ITALIC**.  
EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE.

FIGURE 3B

2011 SOIL CONCENTRATIONS  
TROY MARATHON  
SCHAFFER OIL COMPANY  
TROY, OHIO

Stone Environmental  
Engineering & Science, Inc.  
740 E. GREEN CREEK DRIVE  
WESTERVILLE, OHIO 43081  
614-885-1874 FAX 614-885-1074

SCALE	DRAWN	CHECKED
1"=50'	MR	JAC
DATE	JOB NO.	
SEPTEMBER 2011	23-10-11	





2011 SAMPLE LOCATION

NOTE: RESULTS ARE SHOWN ONLY FOR THOSE ABOVE THE DETECTION LEVEL.

ALL GROUNDWATER CONCENTRATIONS ARE mg/L. ALL EXCEEDANCES ARE SHOWN **BOLD AND ITALIC**. EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE.

MW-2	
10/1/2005	
B	0.011
E	0.008
1/22/2008	
B	0.181
E	0.187
X	0.0411
8/9/2011	
B	<b>0.0188</b>
E	0.0002
N	0.0043

- ▲ INSTALLED IN 2005
- INSTALLED IN 2006
- INSTALLED IN 2011

FIGURE 4A

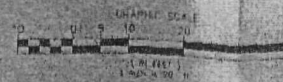
HISTORICAL GW CONCENTRATIONS  
TROY MARATHON  
SCHAFFER OIL COMPANY  
TROY, OHIO

Stone Environmental  
Engineering & Sciences, Inc.  
740-A GREEN CREST DRIVE  
WESTERVILLE, OHIO 43081  
614.665-1074 Fax 614.665-1079

SCALE 1" = 20'	DRAWN JES	CHECKED JAZ
DATE SEPTEMBER 2011	WOP NO. C223-15-11	

LEGEND	
B	Benzene
B(a)A	Benz(a)anthracene
B(a)P	Benz(a)pyrene
B(b)F	Benz(b)fluoranthene
B(k)F	Benz(k)fluoranthene
E	Ethylbenzene
Id	Indeno(1,2,3-cd)pyrene
MTBE	MTBE
N	Naphthalene
T	Toluene
TPH-M	TPH (C10-C20)
X	Xylene (Total)

CVS PHARMACY  
COMMERCIAL DEVELOPMENT



Drawing Name: C223-15-11  
 Drawing Number: 001-000116  
 Date: Nov 01, 2011 - 2:16pm  
 Scale: 1" = 20'

2011 SAMPLE LOCATION

NOTE: ALL 2011 SOIL BORES WERE SAMPLED FOR THE SAME ANALYTES; RESULTS ARE SHOWN ONLY FOR THOSE ABOVE THE DETECTION LEVEL.

LEGEND	
B	Benzene
B(a)A	Benz(a)anthracene
B(a)P	Benz(a)pyrene
B(b)F	Benz(b)fluoranthene
B(k)F	Benz(k)fluoranthene
E	Ethylbenzene
Id	Indene(1,2,3-c-d)pyrene
MTBE	MTBE
N	Naphthalene
T	Toluene
TPH-M	TPH (C10-C20)
X	Xylene (Total)

MW-4	
8/15/2011	
B(a)A	0.00019
B(a)P	0.00037
B(b)F	0.00048
B(k)F	0.00039
N	0.00028

MW-2	
8/15/2011	
B	0.0198
E	0.0052
N	0.0043

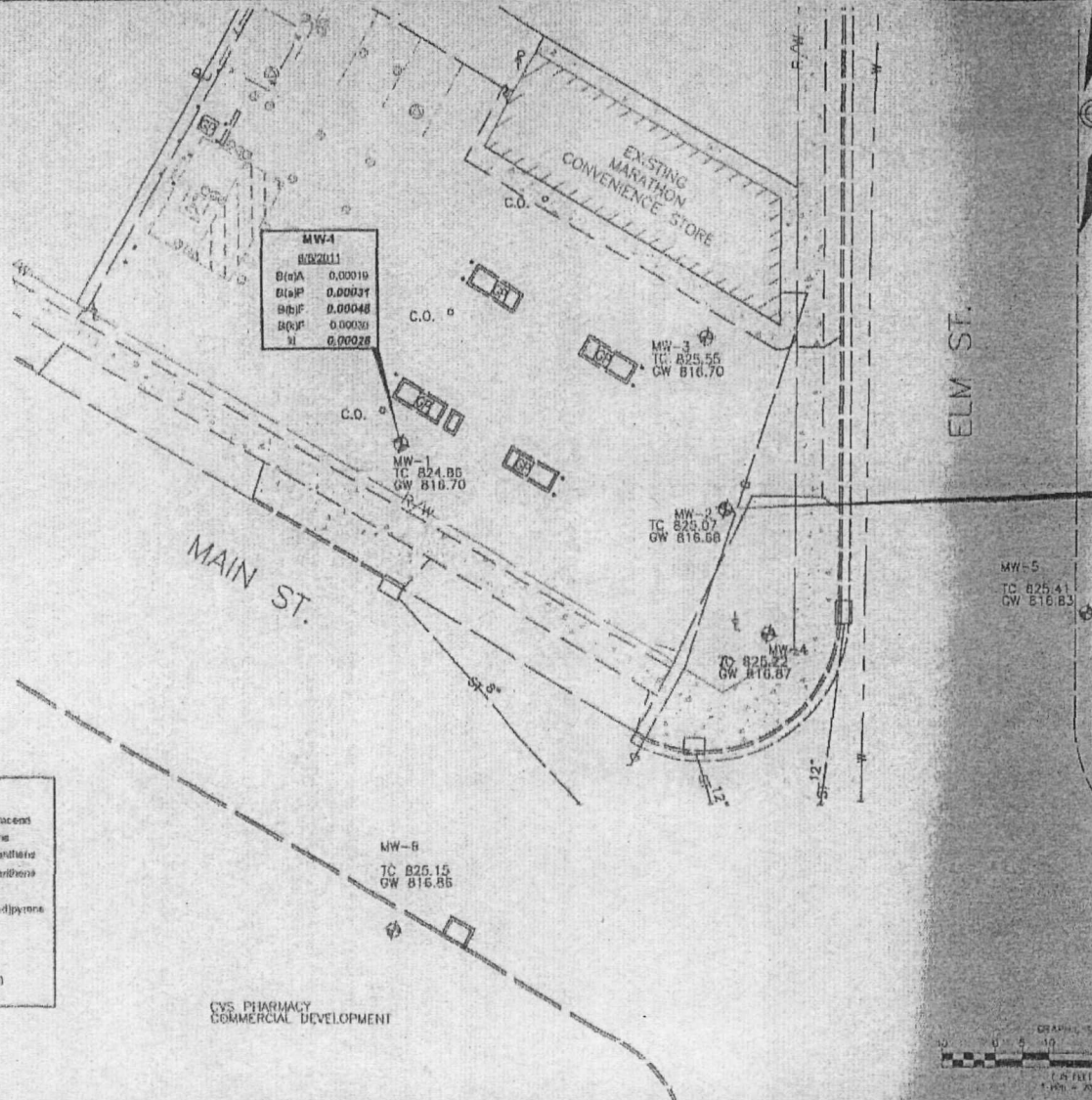
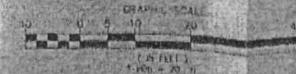
ALL GROUNDWATER CONCENTRATIONS ARE mg/L.  
ALL EXCEEDANCES ARE SHOWN **BOLD AND ITALIC**.  
EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE.

FIGURE 4B

2011 GW CONCENTRATIONS  
TROY MARATHON  
SCHAFER OIL COMPANY  
TROY, OHIO

Stone Environmental  
Engineering & Science, Inc.  
745-A GREEN CREST DRIVE  
WESTERVILLE, OHIO 43081  
614-865-1874 Fax 614-865-1679

SCALE	1"=20'	DRAWN	KB	CHECKED	JAZ
DATE	SEPTEMBER 2011	JOB NO.	10227-15-11		



Prepared by: Stone Environmental Engineering & Science, Inc.  
 Date: 09/15/2011  
 Project: 10227-15-11  
 Drawing: 4B  
 Scale: 1"=20'  
 Job No.: 10227-15-11



# TROY MARATHON Troy, Ohio

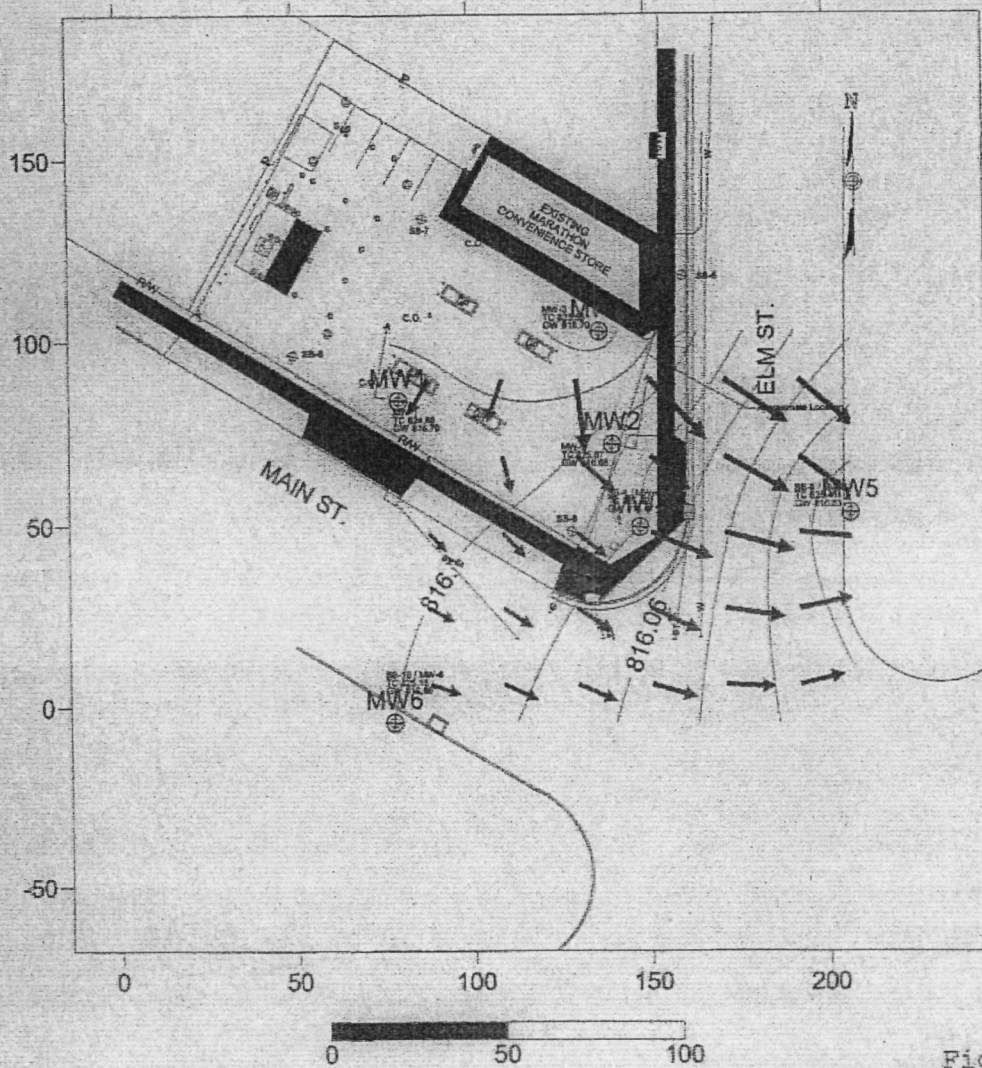


Figure 5  
Groundwater Contour Map

Water level measurements  
taken August 5, 2011

- Groundwater contours
- ← Groundwater flow direction

Stone Environmental  
Engineering & Science, Inc.

**APPENDIX A**

**SOIL BORING LOGS / MONITORING WELL DIAGRAMS**





## Stone Environmental Boring Log

Boring Log ID

SB-280711-02

Page 2 of 8

Date \_\_\_\_\_

8/4/11

**Site**

Frey Marion

Job #

C223-15-11

## Personnel

7A2

### Weather Conditions

May 90-T

[illegible]

## Stone Environmental Boring Log

**Boring Log ID**

SB-080411-03

Page 3 of 8

Date \_\_\_\_\_

8/4/68

Site :

Troy MacArthur

Job #

C22375-11

## Personnel

5.4 z

### Weather Conditions

Sum, 90°F

[illegible]

## Stone Environmental Boring Log

Boring Log ID

SB. 080411-04

Page 4 of 8

Date \_\_\_\_\_

8/4/11

Site

Toy Machine

**Job #**

C. 223-15-11

## Personnel

5.4  $\frac{1}{2}$

### Weather Conditions

Sunny 90°F

[illegible]

## Stone Environmental Boring Log

Boring Log ID

SB-080411-07

Page 5 of 8

Date \_\_\_\_\_

2/7/11

Site

Troy Marikhan

Job #

6223-15-11

## Personnel

JAZ

### Weather Conditions

Sun 7 90°F

[illegible]

## Stone Environmental Boring Log

**Boring Log ID**

SB-08011-06

Page 6 of 8

Date \_\_\_\_\_

8/4/11

**Site**

Troy Mawther

Job #

C223-15-11

## Personnel

SAZ

### Weather Conditions

Sun 90° F

[illegible]

## Stone Environmental Boring Log

**Boring Log ID**

SB. 080411-07

Page 7 of 8

Date \_\_\_\_\_

8/4/11

**Site**

Toy Nation

Job #

C223-15-11

## Personnel

5.4 z

### Weather Conditions

Spring  $90^{\circ}\text{F}$

[illegible]

## Stone Environmental Boring Log

Boring Log ID SB-080411-08 Page 8 of 8  
Date 8/4/11  
Site Troy Marathon Job # C223-15-11  
Personnel SAE  
Weather Conditions Sunny 90°F

[illegible]



## **APPENDIX B**

### **MONITORING WELL DEVELOPMENT & SAMPLING FORMS**

**Stone Environmental Engineering and Science  
Groundwater Sampling Log**

Date 8/5/11

Site Troy Marathan  
 Address 801 West Main St.  
 Weather Sunny High 90°F  
 Personnel SAE

Well ID MW-1

Water Level 8.75  
 Depth to Bottom 13.0  
 Column Height 4.25  
 Well Casing Diameter 1.5"  
 One Well Volume 0.38 gal  
 Total Purge 1.14 gal

Purge Volume Conversions:  
 1"=0.04 2"=0.17  
 1.5"=0.09 4"=0.66  
 \* 1 well volume = column height x purge volume

**Water Quality Data**

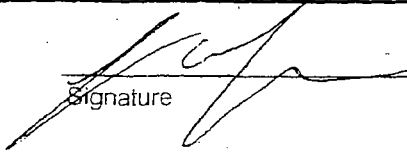
Well Volume	Gallons Purged	pH	Conductivity (mS)	Temp C	Color	Odor	Comments
0	0	6.5	1866	74.2	Dark	None	Solids
1	0.5	6.57	1673	72.8	clearer	None	some solids
2	0.5	6.57	1539	71.4	"	"	"
3	0.5	6.56	1495	70.7	"	"	"
4	0.5	6.56	1482	70.3	clear	"	"

Purge/Sampling Equipment Used Peristaltic Pump + Poly Tubing

**Sampling Data**

Bottle Type	Date	Time	Analytical Method	# of Bottles	Preservative	Comments
3 40ml	8/5/11	11:15	BTEX	3	HCl	
16 Amber	"	"	PAH	2		

Sampler: Sam Zander  
 Printed Name

  
 Signature

Stone Environmental Engineering and Science  
Groundwater Sampling Log

Date 8/5/11

Site Troy Marathon Well ID MU-2  
Address 801 W. Main  
Weather Sunny High 90°F  
Personnel SAZ

Water Level 8.98  
Depth to Bottom 13  
Column Height 4.02  
Well Casing Diameter 1.5  
One Well Volume 0.36  
Total Purge 1.1

Purge Volume Conversions:

1"=0.04 2"=0.17

1.5"=0.09 4"=0.66

\* 1 well volume = column height x purge volume

Water Quality Data

Well Volume	Gallons Purged	pH	Conductivity (mS)	Temp C	Color	Odor	Comments
0	0	6.61	2107	77.4	clear	none	some solids
1	0.5	6.7	1300	72.9	"	"	"
2	0.5	6.68	1297	71.6	"	"	—
3	0.5	6.62	1307	71.2	"	"	—
4							

Purge/Sampling Equipment Used Peristaltic Pm + Bly Tubing

Sampling Data

Bottle Type	Date	Time	Analytical Method	# of Bottles	Preservative	Comments
40 mL	8/5/11	12:00	STX	3	HCl	—
16 AME	8/5/11	12:00	PAN	2	—	—

Sampler: Don Zanker  
Printed Name

[Signature]  
Signature

**Stone Environmental Engineering and Science  
Groundwater Sampling Log**

Date 8/5/11

Site Troy Marthas Well ID MW-3

Address 801 W. Main St.

Weather Sunny 90°F

Personnel JAZ

Water Level 9.4

Depth to Bottom 18.0

Column Height 8.6

Well Casing Diameter 1.5

One Well Volume 0.77

Total Purge 2.322

Purge Volume Conversions:

1"=0.04 2"=0.17

1.5"=0.09 4"=0.66

\* 1 well volume = column height x purge volume

**Water Quality Data**

Well Volume	Gallons Purged	pH	Conductivity (mS)	Temp C	Color	Odor	Comments
0	0	7.24	904	73.3	100 turb	—	Some Solids
1	1	7.01	896	70.6	10	—	4
2	1	6.98	895	67.5	11	—	4
3	1	6.82	894	66.7	10	—	4
4							

Purge/Sampling Equipment Used

Peristaltic Pump & Poly Tubing

**Sampling Data**

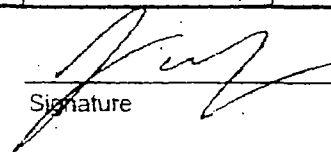
Bottle Type	Date	Time	Analytical Method	# of Bottles	Preservative	Comments
40 mL	8/5/11	12:15	BTE+	3	HCL	—
16 Anion	8/5/11	12:15	TA 14	2	—	—

Sampler:

Sen Zambor

Printed Name

Signature



**Stone Environmental Engineering and Science  
Groundwater Sampling Log**

Date 8/5/11

Site Troy Marathon Well ID MW-4  
 Address 201 V. Mark St.  
 Weather Sunny 90°F  
 Personnel SAZ

Water Level 9.14  
 Depth to Bottom 19.5  
 Column Height 10.36  
 Well Casing Diameter 1"  
 One Well Volume 0.4  
 Total Purge 1.2

Purge Volume Conversions:

1"=0.04 2"=0.17

1.5"=0.09 4"=0.66

\* 1 well volume = column height x purge vol

**Water Quality Data**

Well Volume	Gallons Purged	pH	Conductivity (mS)	Temp C	Color	Odor	Comments
0	0	6.99	1330	72.2	tan	—	S. 7.74
1	0.5	6.90	1290	72.2	"	—	"
2	0.5	6.74	1282	67.4	"	—	"
3	0.5	6.72	1258	67.1	Clear	—	—
4							

Purge/Sampling Equipment Used Peristaltic Pump & Poly Tubes

**Sampling Data**

Bottle Type	Date	Time	Analytical Method	# of Bottles	Preservative	Comments
40 mL vial	8/5/11	12:45	BIBX	2	HCl	
16 Labe	8/5/11	12:45	NTDE	2	—	

Sampler: San Zander  
 Printed Name

[Signature]  
 Signature

**Stone Environmental Engineering and Science  
Groundwater Sampling Log**

Date 8/5/11

Site Tray Marthas  
Address 801 W. Main St.  
Weather Sunny 90°F  
Personnel SAZ

Well ID MW-5

Water Level 9.43  
Depth to Bottom 16.0  
Column Height 6.57  
Well Casing Diameter 1"  
One Well Volume 0.26  
Total Purge 0.8

Purge Volume Conversions:

1"=0.04 2"=0.17

1.5"=0.09 4"=0.66

\* 1 well volume = column height x purge volume

**Water Quality Data**

Well Volume	Gallons Purged	pH	Conductivity (mS)	Temp C	Color	Odor	Comments
0	0	7.07	1186	72.8	100	—	slightly salty
1	0.5	6.93	1163	70.0	clear	—	" "
2	0.5	6.92	1206	68.8	clear	—	" "
3	0.5	6.85	1246	68.5	clear	—	—
4	0.5	6.84	1269	67.4	clear	—	—

Purge/Sampling Equipment Used Peristaltic Pump - Poly Tubing

**Sampling Data**

Bottle Type	Date	Time	Analytical Method	# of Bottles	Preservative	Comments
40ml VOA	8/5/11	13:10	BTEX	3	HCL	
16 Anion	8/5/11	13:10	PAH	2	—	

Sampler: Don Zander  
Printed Name

[Signature]  
Signature

**Stone Environmental Engineering and Science  
Groundwater Sampling Log**

Date 8/5/11

Site Troy Weather Well ID MW-6

Address 801 W Main St.

Weather Sunny 90°F

Personnel SAZ

Water Level 9.05

Depth to Bottom 16.0

Column Height 6.95

Well Casing Diameter 1"

One Well Volume 0.28

Total Purge 0.83

Purge Volume Conversions:

1"=0.04 2"=0.17

1.5"=0.09 4"=0.66

\* 1 well volume = column height x purge volum

**Water Quality Data**

Well Volume	Gallons Purged	pH	Conductivity (mS)	Temp C	Color	Odor	Comments
0	0	6.82	1552	20.0	clear	none	—
1	0.5	6.89	1531	67.3	"	"	—
2	0.5	6.84	1527	66.8	"	"	—
3	0.5	6.81	1557	65.6	"	"	—
4							

Purge/Sampling Equipment Used

Peristaltic Pump and Poly T. tubing

**Sampling Data**

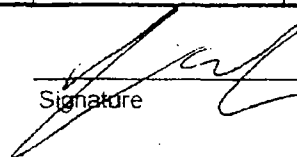
Bottle Type	Date	Time	Analytical Method	# of Bottles	Preservative	Comments
40ml VOA	8/5/11	13:45	BTEX	3	HCl	—
16 A.les	8/5/11	13:45	PAH	2	—	—

Sampler:

Sam Zander

Printed Name

Signature



**APPENDIX C**  
**SOIL CLASSIFICATION FORM**



# BUSTR SOIL CLASSIFICATION FORM

Major Divisions			Letter Symbol	Typical Description	Soil Class
Coarse Grained Soils  More than 50% of material is retained on #200 Sieve	Gravel and Gravelly Soils  More than 50% of Coarse Fraction Retained on No. 4 Sieve	Clean Gravels (Little or No Fines)	GW	Well-Graded Gravels, Gravel-Sand Mixtures, Little or No Fines	Class 1
			GP	Poorly-Graded Gravels, Gravel-Sand Mixtures, Little or No Fines	
		Gravels with Fines (Appreciable Amount of Fines)	GM	Silty Gravels, Gravel-Sand-Silt Mixtures	
			GC	Clayey Gravels, Gravel-Sand-Clay Mixtures	
	Sand and Sandy Soils  More than 50% of Coarse Fraction Passes thru No. 4 Sieve	Clean Sand (Little or No Fines)	SW	Well-Graded Sands, Gravelly Sands, Little or No Fines	
			SP	Poorly-Graded Sands, Gravelly Sands, Little or No Fines	
		Sands with Fines (Appreciable Amount of Fines)	SM	Silty-Sands, Sand-Silt Mixtures	
			SC	Clayey Sands, Sand-Clay Mixtures	
Fine Grained Soils  More than 50% of material passes thru #200 Sieve	Silts and Clays  Liquid Limit<50		ML	Inorganic Silt and Very Fine Sands, Rock Flour, Silty or Clayey Fine Sand or Clayey Silts with Slight Plasticity	Class 2
			CL	Inorganic Clays of Low to Medium Plasticity, Gravelly Clays, Sandy Clays, Silty Clays, Lean Clays	
			OL	Organic Silts and Organic Silty Clays of Low Plasticity	
	Silts and Clays  Liquid Limit>50		MH	Inorganic Silts, Micaceous or Diatomaceous Fine Sand or Silty Soil	Class 3
			CH	Inorganic Clays of High Plasticity, Fat Clays	
			OH	Organic Clays of Medium to Plasticity, Organic Silts	
			Highly Organic Soils		

Pathway	Symbol	Pathway	Symbol
Soil to DW Leaching	GM	GW to Indoor Air	GM
Soil to Indoor Air	GM	Soil to Non-DW Leaching	GM

I have inspected the soil at: 801 W. MAIN ST., TROY, OHIO Ohio.  
(address) (city)

Name (Printed): JONATHAN A. ZANDERS, SR. ENV. TECH. STONE ENVIRONMENTAL Date: 9/6/06  
(Name of Classifier, Title, Firm Name)

Signature: \_\_\_\_\_

**APPENDIX D**

**LABORATORY ANALYTICAL REPORTS, 2005 - 2011**

NORTH COAST ID: 55636 – 55641

CLIENT: STONE ENVIRONMENTAL  
6460 BUSCH BLVD. SUITE 105  
COLUMBUS, OHIO 43229

CONTACT: JON ZANDERS

PROJECT: C05 – 223 – 01 / SCHAFER OIL – TROY MARATHON

	<u>STONE ID</u>	<u>NC ID</u>
10/26/05	10:05 MW – 1 6 – 8'	55636
10/26/05	10:10 MW – 1 10 – 12'	55637
10/26/05	12:05 MW – 2 2 – 4'	55638
10/26/05	12:20 MW – 2 8 – 10'	55639
10/26/05	13:49 MW – 3 0 – 2'	55640
10/26/05	14:39 MW – 3 8 – 10'	55641

TESTS REQUESTED: BTEX, PAH, TPH – GASOLINE

DATE RECEIVED: OCTOBER 28, 2005

DATE REPORTED: NOVEMBER 3, 2005

REVIEWED BY:

APPROVED BY:

NORTH COAST ID: 55636 – 55641  
CLIENT: STONE ENVIRONMENTAL  
STONE PROJECT: SCHAFER OIL – TROY MARATHON

**BTEX**  
**EPA METHOD 8260B – SOIL**

<b><u>STONE ID</u></b>	<b><u>NC ID</u></b>	<b><u>BENZENE</u></b>	<b><u>TOLUENE</u></b>	<b><u>ETHYLBENZENE</u></b>	<b><u>XYLENE</u></b>
MW – 1 6 – 8'	55636	ND	ND	ND	N
MW – 1 10 – 12'	55637	0.037	ND	0.993	0.2
MW – 2 2 – 4'	55638	ND	ND	0.265	0.0
MW – 2 8 – 10'	55639	ND	ND	4.00	33.
MW – 3 0 – 2'	55640	0.174	11.15	24.25	90.
MW – 3 8 – 10'	55641	ND	0.280	0.211	1.3

ALL RESULTS ARE EXPRESSED IN mg/Kg

DETECTION LIMIT: 0.005 mg/Kg PER COMPOUND

DATE ANALYZED/CALIBRATED: 11/1/05 (55637 – 55640)

NORTH COAST ID: 55636 – 55638  
 CLIENT: STONE ENVIRONMENTAL  
 STONE PROJECT: SCHAFER OIL – TROY MARATHON

**POLYNUCLEAR AROMATIC HYDROCARBONS**  
EPA METHOD 8270C – SOIL

COMPOUND	MW – 1 6 – 8'	MW – 1 10 – 12'	MW – 2 2 – 4'
	55636	55637	55638
ACENAPHTHENE	ND	ND	ND
ACENAPHTHYLENE	ND	ND	ND
ANTHRACENE	ND	ND	ND
BENZO(A)ANTHRACENE	ND	ND	ND
BENZO(A)PYRENE	ND	ND	ND
BENZO(B)FLUORANTHENE	ND	ND	ND
BENZO(GH)PERYLENE	ND	ND	ND
BENZO(K)FLUORANTHENE	ND	ND	ND
CHRYSENE	ND	ND	ND
DIBENZO(A,H)ANTHRACENE	ND	ND	ND
FLUORANTHENE	ND	ND	ND
FLUORENE	ND	ND	ND
INDENO(1,2,3-CD)PYRENE	ND	ND	ND
NAPHTHALENE	425	ND	2725
PHENANTHRENE	ND	ND	ND
PYRENE	ND	ND	ND
DETECTION LIMIT (µg/Kg)	150	150	1500

ALL RESULTS ARE EXPRESSED IN µg/Kg

DATE EXTRACTED: 10/31/05

DATE ANALYZED/CALIBRATED: 11/4/05

NORTH COAST ID: 55639 – 55641  
 CLIENT: STONE ENVIRONMENTAL  
 STONE PROJECT: SCHAFER OIL – TROY MARATHON

**POLYNUCLEAR AROMATIC HYDROCARBONS**  
**EPA METHOD 8270C – SOIL**

<b><u>COMPOUND</u></b>	<b><u>MW – 2 8 – 10'</u></b>	<b><u>MW – 3 0 – 2'</u></b>	<b><u>MW – 3 8 – 10'</u></b>
	55639	55640	55641
ACENAPHTHENE	ND	ND	ND
ACENAPHTHYLENE	ND	ND	ND
ANTHRACENE	ND	ND	ND
BENZO(A)ANTHRACENE	ND	ND	ND
BENZO(A)PYRENE	ND	ND	ND
BENZO(B)FLUORANTHENE	ND	ND	ND
BENZO(GH)PERYLENE	ND	ND	ND
BENZO(K)FLUORANTHENE	ND	ND	ND
CHRYSENE	ND	ND	ND
DIBENZO(A,H)ANTHRACENE	ND	ND	ND
FLUORANTHENE	ND	ND	ND
FLUORENE	ND	ND	ND
INDENO(1,2,3-CD)PYRENE	ND	ND	ND
NAPHTHALENE	5584	5640	723
PHENANTHRENE	302	254	ND
PYRENE	ND	ND	ND
DETECTION LIMIT (µg/Kg)	150	150	150

ALL RESULTS ARE EXPRESSED IN µg/Kg

DATE EXTRACTED: 10/31/05

DATE ANALYZED/CALIBRATED: 11/4/05

NORTH COAST ID: 55636 – 55641  
CLIENT: STONE ENVIRONMENTAL  
STONE PROJECT: SCHAFER OIL – TROY MARATHON

**TPH – DIESEL (C<sub>10-20</sub>)**  
**EPA METHOD MOD. 8015 – SOIL**

<b><u>STONE ID</u></b>	<b><u>NC ID</u></b>	<b><u>RESULTS (mg/Kg)</u></b>
MW – 1 6 – 8'	55636	744
MW – 1 10 – 12'	55637	3519
MW – 2 2 – 4'	55638	1038
MW – 2 8 – 10'	55639	10440
MW – 3 0 – 2'	55640	11750
MW – 3 8 – 10'	55641	399

DETECTION LIMIT: 2.0 mg/Kg

DATE ANALYZED: 10/31/05

NORTH COAST ID: 55855 – 55859

CLIENT: STONE ENVIRONMENTAL  
6460 BUSCH BLVD. SUITE 105  
COLUMBUS, OHIO 43229

CONTACT: JON ZANDERS

PROJECT: C05 – 223 – 01 / SCHAFFER OIL – TROY MARATHON

<u>STONE ID</u>	<u>NC ID</u>
11/7/05 13:25 MW – 1	55855
11/7/05 14:05 MW – 2	55856
11/7/05 14:45 MW – 3	55857
11/7/05 15:05 PURGE	55858
11/7/05 FIELD/TRIP BLANK	55859

TESTS REQUESTED: BTEX, PAH

DATE RECEIVED: NOVEMBER 9, 2005

DATE REPORTED: NOVEMBER 11, 2005

REVIEWED BY:

APPROVED BY:



NORTH COAST ID: 55855 – 55859  
CLIENT: STONE ENVIRONMENTAL  
STONE PROJECT: SCHAFER OIL – TROY MARATHON

**BTEX**  
**EPA METHOD 602 – WATER**

<b>STONE ID</b>	<b>NC ID</b>	<b>BENZENE</b>	<b>TOLUENE</b>	<b>ETHYLBENZENE</b>	<b>XYLENE</b>
MW – 1	55855	ND	ND	0.004	ND
MW – 2	55856	0.011	ND	0.009	0.003
MW – 3	55857	0.026	0.186	0.057	0.606
PURGE	55858	0.006	0.007	0.003	0.105
FIELD/TRIP BLANK	55859	ND	ND	ND	ND

ALL RESULTS ARE EXPRESSED IN mg/L

DETECTION LIMIT: 0.002 mg/L PER COMPOUND

DATE ANALYZED/CALIBRATED: 11/10/05

NORTH COAST ID: 55855 - 55858  
CLIENT: STONE ENVIRONMENTAL  
STONE PROJECT: SCHAFER OIL - TROY MARATHON

**POLYNUCLEAR AROMATIC HYDROCARBONS**  
**EPA METHOD 610 - WATER**

<b>COMPOUND</b>	<b>MW - 1</b>	<b>MW - 2</b>	<b>MW - 3</b>	<b>PURGE</b>
	55855	55856	55857	55858
ACENAPHTHENE	ND	ND	ND	ND
ACENAPHTHYLENE	ND	ND	ND	ND
ANTHRACENE	ND	ND	ND	ND
BENZO(A)ANTHRACENE	ND	ND	ND	ND
BENZO(A)PYRENE	ND	ND	ND	ND
BENZO(B)FLUORANTHENE	ND	ND	ND	ND
BENZO(GH)PERYLENE	ND	ND	ND	ND
BENZO(K)FLUORANTHENE	ND	ND	ND	ND
CHRYSENE	ND	ND	ND	ND
DIBENZO(A,H)ANTHRACENE	ND	ND	ND	ND
FLUORANTHENE	ND	ND	ND	ND
FLUORENE	ND	ND	ND	ND
INDENO(1,2,3-CD)PYRENE	ND	ND	ND	ND
NAPHTHALENE	46	ND	ND	ND
PHENANTHRENE	ND	ND	ND	ND
PYRENE	ND	ND	ND	ND
DETECTION LIMIT (µg/L)	10	10	10	10

ALL RESULTS ARE EXPRESSED IN µg/L

DATE EXTRACTED: 11/10/05

DATE ANALYZED/CALIBRATED: 11/11/05

NORTH COAST ID: 61682 – 61685

CLIENT: STONE ENVIRONMENTAL  
6460 BUSCH BLVD. SUITE 105  
COLUMBUS, OHIO 43229

CONTACT: JON ZANDERS

PROJECT: TROY MARATHON

<u>STONE ID</u>	<u>NC ID</u>
9/13/06 12:55 MW – 4	61682
9/13/06 13:20 MW – 5	61683
9/13/06 13:50 MW – 6	61684
9/13/06 PURGE WATER	61685

TESTS REQUESTED: BTEX, PAH

DATE RECEIVED: SEPTEMBER 14, 2006

DATE REPORTED: SEPTEMBER 18, 2006

REVIEWED BY:

APPROVED BY:

NORTH COAST ID: 61482 - 61485  
CLIENT: STONE ENVIRONMENTAL  
PROJECT: TROY MARATHON

**BTEX**  
**EPA METHOD 8260B – WATER, SOIL**

<u>STONE ID</u>	<u>NC ID</u>	<u>BENZE NE</u>	<u>TOLUEN E</u>	<u>ETHYLBENZE NE</u>	<u>XYLEN S</u>
9/13/06 12:55 MW – 4	61682	ND	ND	ND	ND
9/13/06 13:20 MW – 5	61683	0.008	ND	0.005	ND
9/13/06 13:50 MW – 6	61684	ND	ND	ND	ND
9/13/06 PURGE WATER	61685	ND	ND	ND	ND

ALL WATER RESULTS ARE EXPRESSED IN mg/L, SOIL IN mg/Kg

DETECTION LIMIT: WATER: 0.002 mg/L PER COMPOUND, SOIL: 0.005 mg/Kg  
PER COMPOUND

DATE ANALYZED/CALIBRATED: 9/19/06

NORTH COAST ID: 61682  
CLIENT: STONE ENVIRONMENTAL  
PROJECT: TROY MARATHON  
STONE ENVIRONMENTAL ID: 9/13/06 12:55 MW - 4

**POLYNUCLEAR AROMATIC HYDROCARBONS**  
**EPA METHOD 8270C - SOIL**

<b><u>COMPOUND</u></b>	<b><u>DETECTION LIMIT</u></b> <b><u>(µg/Kg)</u></b>	<b><u>RESULTS (µg/Kg)</u></b>
ACENAPHTHENE	200	ND
ACENAPHTHYLENE	200	ND
ANTHRACENE	200	ND
BENZO(A)ANTHRACENE	200	ND
BENZO(A)PYRENE	200	ND
BENZO(B)FLUORANTHENE	200	ND
BENZO(GH)PERYLENE	200	ND
BENZO(K)FLUORANTHENE	200	ND
CHRYSENE	200	ND
DIBENZO(A,H)ANTHRACENE	200	ND
FLUORANTHENE	200	ND
FLUORENE	200	ND
INDENO(1,2,3-CD)PYRENE	200	ND
NAPHTHALENE	200	ND
PHENANTHRENE	200	ND
PYRENE	200	ND

DATE EXTRACTED: 9/18/06

DATE ANALYZED/CALIBRATED: 9/19/06

NORTH COAST ID: 61683  
CLIENT: STONE ENVIRONMENTAL  
PROJECT: TROY MARATHON  
STONE ENVIRONMENTAL ID: 9/13/06 13:20 MW - 5

**POLYNUCLEAR AROMATIC HYDROCARBONS**  
**EPA METHOD 8270C - SOIL**

<b><u>COMPOUND</u></b>	<b><u>DETECTION LIMIT</u></b> <b><u>(µg/Kg)</u></b>	<b><u>RESULTS (µg/Kg)</u></b>
ACENAPHTHENE	200	ND
ACENAPHTHYLENE	200	ND
ANTHRACENE	200	ND
BENZO(A)ANTHRACENE	200	ND
BENZO(A)PYRENE	200	ND
BENZO(B)FLUORANTHENE	200	ND
BENZO(GH)PERYLENE	200	ND
BENZO(K)FLUORANTHENE	200	ND
CHRYSENE	200	ND
DIBENZO(A,H)ANTHRACENE	200	ND
FLUORANTHENE	200	ND
FLUORENE	200	ND
INDENO(1,2,3-CD)PYRENE	200	ND
NAPHTHALENE	200	ND
PHENANTHRENE	200	ND
PYRENE	200	ND

DATE EXTRACTED: 9/18/06

DATE ANALYZED/CALIBRATED: 9/19/06

NORTH COAST ID: 61684  
CLIENT: STONE ENVIRONMENTAL  
PROJECT: TROY MARATHON  
STONE ENVIRONMENTAL ID: 9/13/06 13:50 MW - 6

**POLYNUCLEAR AROMATIC HYDROCARBONS**  
EPA METHOD 8270C - SOIL

<u>COMPOUND</u>	<u>DETECTION LIMIT</u> <u>(<math>\mu</math>g/Kg)</u>	<u>RESULTS (<math>\mu</math>g/Kg)</u>
ACENAPHTHENE	200	ND
ACENAPHTHYLENE	200	ND
ANTHRACENE	200	ND
BENZO(A)ANTHRACENE	200	ND
BENZO(A)PYRENE	200	ND
BENZO(B)FLUORANTHENE	200	ND
BENZO(GH)PERYLENE	200	ND
BENZO(K)FLUORANTHENE	200	ND
CHRYSENE	200	ND
DIBENZO(A,H)ANTHRACENE	200	ND
FLUORANTHENE	200	ND
FLUORENE	200	ND
INDENO(1,2,3-CD)PYRENE	200	ND
NAPHTHALENE	200	ND
PHENANTHRENE	200	ND
PYRENE	200	ND

DATE EXTRACTED: 9/18/06

DATE ANALYZED/CALIBRATED: 9/19/06

NORTH COAST ID: 61685  
CLIENT: STONE ENVIRONMENTAL  
PROJECT: TROY MARATHON  
STONE ENVIRONMENTAL ID: 9/13/06 PURGE WATER

**POLYNUCLEAR AROMATIC HYDROCARBONS**  
**EPA METHOD 8270C – SOIL**

<b><u>COMPOUND</u></b>	<b><u>DETECTION LIMIT</u></b> <b><u>(µg/Kg)</u></b>	<b><u>RESULTS (µg/Kg)</u></b>
ACENAPHTHENE	200	ND
ACENAPHTHYLENE	200	ND
ANTHRACENE	200	ND
BENZO(A)ANTHRACENE	200	ND
BENZO(A)PYRENE	200	ND
BENZO(B)FLUORANTHENE	200	ND
BENZO(GH)PERYLENE	200	ND
BENZO(K)FLUORANTHENE	200	ND
CHRYSENE	200	ND
DIBENZO(A,H)ANTHRACENE	200	ND
FLUORANTHENE	200	ND
FLUORENE	200	ND
INDENO(1,2,3-CD)PYRENE	200	ND
NAPHTHALENE	200	ND
PHENANTHRENE	200	ND
PYRENE	200	ND

DATE EXTRACTED: 9/18/06

DATE ANALYZED/CALIBRATED: 9/19/06



January 28, 2008

Mr. Jon Zanders  
Stone Environmental  
748-A Green Crest Drive  
Westerville, OH 43081

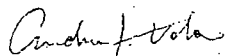
RE: Project: Schafer Oil/Troy Marathon  
Pace Project No.: 5011380

Dear Mr. Zanders:

Enclosed are the analytical results for sample(s) received by the laboratory on January 23, 2008. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Andrew Votaw

andrew.votaw@pacelabs.com  
Project Manager

Illinois/NELAC Certification Number: 100418  
Indiana Certification Number: C-49-06  
Kansas Certification Number: E-10247  
Kentucky Certification Number: 0042  
Ohio VAP: CL0065  
Pennsylvania: 68-00791  
West Virginia Certification Number: 330

Enclosures

**REPORT OF LABORATORY ANALYSIS**

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### SAMPLE SUMMARY

Project: Schafer Oil/Troy Marathon  
Pace Project No.: 5011380

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5011380001	MW-1	Water	01/22/08 13:50	01/23/08 09:31
5011380002	MW-2	Water	01/22/08 12:55	01/23/08 09:31
5011380003	MW-3	Water	01/22/08 14:20	01/23/08 09:31
5011380004	MW-4	Water	01/22/08 13:25	01/23/08 09:31

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Schafer Oil/Troy Marathon

Pace Project No.: 5011380

Lab ID	Sample ID	Method	Analysts	Analytes Reported
5011380001	MW-1	EPA 8021	LMS	6
5011380002	MW-2	EPA 8021	LMS	6
5011380003	MW-3	EPA 8021	LMS	6
5011380004	MW-4	EPA 8021	LMS	6

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Schafer Oil/Troy Marathon

Pace Project No.: 5011380

Sample: MW-1 Lab ID: 5011380001 Collected: 01/22/08 13:50 Received: 01/23/08 09:31 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.
<b>8021 GCV BTEX</b>		Analytical Method: EPA 8021					
Benzene	6.2	ug/L	1.0	1		01/27/08 11:35	71-43-2
Ethylbenzene	13.4	ug/L	5.0	1		01/27/08 11:35	100-41-4
Methyl-tert-butyl ether	ND	ug/L	4.0	1		01/27/08 11:35	1634-04-4
Toluene	ND	ug/L	5.0	1		01/27/08 11:35	108-88-3
Xylene (Total)	ND	ug/L	10.0	1		01/27/08 11:35	1330-20-7
a,a,a-Trifluorotoluene (S)	87	%	66-134	1		01/27/08 11:35	98-08-8

Date: 01/28/2008 05:29 PM

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Schafer Oil/Troy Marathon  
Project No.: 5011380

Sample: MW-2	Lab ID: 5011380002	Collected: 01/22/08 12:55	Received: 01/23/08 09:31	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
I GCV BTEX		Analytical Method: EPA 8021						
zene	191	ug/L	1.0	1		01/27/08 23:36	71-43-2	
ibenzene	167	ug/L	5.0	1		01/27/08 23:36	100-41-4	
yl-tert-butyl ether	ND	ug/L	4.0	1		01/27/08 23:36	1634-04-4	
ene	ND	ug/L	5.0	1		01/27/08 23:36	108-88-3	
ne (Total)	41.1	ug/L	10.0	1		01/27/08 23:36	1330-20-7	
3-Trifluorotoluene (S)	106	%	66-134	1		01/27/08 23:36	98-08-8	

## ANALYTICAL RESULTS

Project: Schafer Oil/Troy Marathon  
Pace Project No.: 5011380

Sample: MW-3 Lab ID: 5011380003 Collected: 01/22/08 14:20 Received: 01/23/08 09:31 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.
<b>8021 GCV BTEX</b>		Analytical Method: EPA 8021					
Benzene	2.3 ug/L		1.0	1		01/27/08 12:25	71-43-2
Ethylbenzene	ND ug/L		5.0	1		01/27/08 12:25	100-41-4
Methyl-tert-butyl ether	ND ug/L		4.0	1		01/27/08 12:25	1634-04-4
Toluene	ND ug/L		5.0	1		01/27/08 12:25	108-88-3
Xylene (Total)	ND ug/L		10.0	1		01/27/08 12:25	1330-20-7
a,a,a-Trifluorotoluene (S)	81 %		66-134	1		01/27/08 12:25	98-08-8

Date: 01/28/2008 05:29 PM

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Subject: Schafer Oil/Troy Marathon  
Project No.: 5011380

Sample: MW-4 Lab ID: 5011380004 Collected: 01/22/08 13:25 Received: 01/23/08 09:31 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
11 GC/MS BTEX Analytical Method: EPA 8021								
Benzene	42.4	ug/L	1.0	1		01/26/08 13:43	71-43-2	
Toluenes	12.4	ug/L	5.0	1		01/26/08 13:43	100-41-4	
ethylbenzene	4.9	ug/L	4.0	1		01/26/08 13:43	1634-04-4	
o-xylene	ND	ug/L	5.0	1		01/26/08 13:43	108-88-3	
m-xylene	25.4	ug/L	10.0	1		01/26/08 13:43	1330-20-7	
p-xylene	120	%	66-134	1		01/26/08 13:43	98-08-8	

## QUALITY CONTROL DATA

Project: Schafer Oil/Troy Marathon

Pace Project No.: 5011380

QC Batch: GCV/3643

Analysis Method: EPA 8021

QC Batch Method: EPA 8021

Analysis Description: 8021 GCV BTEX Only

Associated Lab Samples: 5011380004

METHOD BLANK: 126342

Associated Lab Samples: 5011380004

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Benzene	ug/L	ND	1.0	
Ethylbenzene	ug/L	ND	5.0	
Methyl-tert-butyl ether	ug/L	ND	4.0	
Toluene	ug/L	ND	5.0	
Xylene (Total)	ug/L	ND	10.0	
a,a,a-Trifluorotoluene (S)	%	83	66-134	

LABORATORY CONTROL SAMPLE: 126343

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	100	100	100	77-122	
Ethylbenzene	ug/L	100	89.6	90	80-121	
Methyl-tert-butyl ether	ug/L	100	101	101	74-125	
Toluene	ug/L	100	95.0	95	80-120	
Xylene (Total)	ug/L	300	280	93	80-121	
a,a,a-Trifluorotoluene (S)	%			88	66-134	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 126344

126345

Parameter	Units	5011424005		MS		MSD		MS		MSD		MS		MSD		% Rec		Limits		Max	
		Result	Conc.	Spike	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	% Rec	Conc.	Result	Conc.	% Rec	Conc.	Limit	RPD	RPD	RPD
Benzene	ug/L	ND	100	100	100	93.7	95.1	94	95	70-128	1	20									
Ethylbenzene	ug/L	ND	100	100	100	82.3	83.0	82	83	58-132	1	20									
Methyl-tert-butyl ether	ug/L	ND	100	100	100	90.1	101	90	101	62-134	11	20									
Toluene	ug/L	ND	100	100	100	88.4	89.4	88	89	66-128	1	20									
Xylene (Total)	ug/L	ND	300	300	300	255	258	85	86	55-133	1	20									
a,a,a-Trifluorotoluene (S)	%							84	85	66-134		20									

Date: 01/28/2008 05:29 PM

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Schafer Oil/Troy Marathon  
Pace Project No.: 5011380

QC Batch: GCV/3648 Analysis Method: EPA 8021  
QC Batch Method: EPA 8021 Analysis Description: 8021 GCV BTEX Only  
Associated Lab Samples: 5011380001, 5011380003

METHOD BLANK: 126376

Associated Lab Samples: 5011380001, 5011380003

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
benzene	ug/L	ND	1.0	
ethylbenzene	ug/L	ND	5.0	
Methyl-tert-butyl ether	ug/L	ND	4.0	
toluene	ug/L	ND	5.0	
xylene (Total)	ug/L	ND	10.0	
m,p,a-Trifluorotoluene (S)	%	81	66-134	

LABORATORY CONTROL SAMPLE: 126377

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
benzene	ug/L	100	93.3	93	77-122	
ethylbenzene	ug/L	100	94.7	95	80-121	
Methyl-tert-butyl ether	ug/L	100	86.1	86	74-125	
toluene	ug/L	100	94.4	94	80-120	
xylene (Total)	ug/L	300	278	93	80-121	
m,p,a-Trifluorotoluene (S)	%			74	66-134	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 126378 126379

Parameter	Units	5011457006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
benzene	ug/L	1.7	100	100	94.5	101	93	99	70-128	6	20
ethylbenzene	ug/L	ND	100	100	91.9	100	92	100	58-132	9	20
Methyl-tert-butyl ether	ug/L	52.8	100	100	143	129	90	77	62-134	10	20
toluene	ug/L	ND	100	100	92.2	99.4	92	99	66-128	8	20
xylene (Total)	ug/L	ND	300	300	271	294	90	98	55-133	8	20
m,p,a-Trifluorotoluene (S)	%						73	73	66-134	20	

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### REPORT OF LABORATORY ANALYSIS

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# QUALITY CONTROL DATA

Project: Schafer Oil/Troy Marathon  
Pace Project No.: 5011380

QC Batch: GCV/3649 Analysis Method: EPA 8021  
QC Batch Method: EPA 8021 Analysis Description: 8021 GCV BTEX Only  
Associated Lab Samples: 5011380002

METHOD BLANK: 126513

Associated Lab Samples: 5011380002

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Benzene	ug/L	ND	1.0	
Ethylbenzene	ug/L	ND	5.0	
Methyl-tert-butyl ether	ug/L	ND	4.0	
Toluene	ug/L	ND	5.0	
Xylene (Total)	ug/L	ND	10.0	
a,a,a-Trifluorotoluene (S)	%	82	66-134	

LABORATORY CONTROL SAMPLE: 126514

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	100	97.6	98	77-122	
Ethylbenzene	ug/L	100	86.7	87	80-121	
Methyl-tert-butyl ether	ug/L	100	95.0	95	74-125	
Toluene	ug/L	100	91.5	92	80-120	
Xylene (Total)	ug/L	300	269	90	80-121	
a,a,a-Trifluorotoluene (S)	%			84	66-134	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 126515 126516

Parameter	Units	5011436006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD
Benzene	ug/L	ND	100	100	102	103	102	103	70-128	2
Ethylbenzene	ug/L	ND	100	100	90.5	92.4	90	92	58-132	2
Methyl-tert-butyl ether	ug/L	ND	100	100	102	99.2	102	99	62-134	2
Toluene	ug/L	ND	100	100	95.8	97.7	96	98	66-128	2
Xylene (Total)	ug/L	ND	300	300	281	287	93	96	55-133	2
a,a,a-Trifluorotoluene (S)	%						87	85	66-134	20

Date: 01/28/2008 05:29 PM

## REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

ect: Schafer Oil/Troy Marathon  
Project No.: 5011380

### INITIATIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

Section A Required Client Information:		Section B Required Project Information		Section C Invoice Information		Page: <u>1150466</u>	
Company: <u>STONK ENV.</u>		Report To: <u>Jon EANDERS</u>		Attention: <u>Jon EANDERS</u>			
Address: <u>748-A Green Crest Dr</u>		Copy To:		Company Name:		REGULATORY AGENCY	
<u>Westerville, OH 43081</u>				Address:		NPDES GROUND WATER DRINKING WATER	
Email To:		Purchase Order No:		Pace Quote Reference:		X UST RCRA OTHER	
Phone: <u>614 865-1874</u> Fax: <u>614 865-1879</u>		Project Name: <u>Schafer Oil - Troy Marathon</u>		Pace Project Manager: <u>DREW VOTAU</u>		Site Location:	
Requested Due Date/TAT: <u>NORMAL</u>		Project Number: <u>C233-07-07</u>		Pace Profile #:		STATE: <u>OH</u>	

[illegible]

12/12<sup>OK</sup>

ORIGINAL

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER: Jon Zander					
SIGNATURE of SAMPLER: [Signature]	DATE Signed (MM/DD/YY): 1/22/08				



# Sample Condition Upon Receipt

Client Name: STONE ENV.

Project # 5011380

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other \_\_\_\_\_

Tracking #: 699740357675

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other \_\_\_\_\_

Thermometer Used 12134

Type of Ice: Wet Blue None

☒ Samples on ice, cooling process has begun

Cooler Temperature 2°C

Biological Tissue is Frozen: Yes ☐ No ☒

Date and Initials of person examining contents: BA 12-23-08

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:		
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Lot # of added preservative
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required?

Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: \_\_\_\_\_

Date: \_\_\_\_\_

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

August 23, 2011

Mr. Jon Zanders  
Stone Environmental  
748-A Green Crest Drive  
Westerville, OH 43081

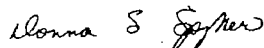
RE: Project: Schafer Oil-Troy Marathon  
Pace Project No.: 5051484

Dear Mr. Zanders:

Enclosed are the analytical results for sample(s) received by the laboratory on August 10, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Donna Spyker

donna.spyker@pacelabs.com  
Project Manager

Illinois/NELAC Certification #: 100418  
Indiana Certification #: C-49-06  
Kansas Certification #: E-10247  
Kentucky Certification #: 0042  
Louisiana Certification #: 04076  
Ohio VAP: CL0065  
West Virginia Certification #: 330

Enclosures

**REPORT OF LABORATORY ANALYSIS**

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## SAMPLE SUMMARY

Project: Schafer Oil-Troy Marathon  
Pace Project No.: 5051484

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5051484001	SB-080411-02 6-8	Solid	08/04/11 10:00	08/10/11 11:44
5051484002	SB-080411-02 10-12	Solid	08/04/11 10:05	08/10/11 11:44
5051484003	SB-080411-03 4-8	Solid	08/04/11 10:25	08/10/11 11:44
5051484004	SB-080411-03 18-20	Solid	08/04/11 10:45	08/10/11 11:44
5051484005	SB-080411-04 8-12	Solid	08/04/11 11:00	08/10/11 11:44
5051484006	SB-080411-04 18-20	Solid	08/04/11 11:20	08/10/11 11:44
5051484007	SB-080411-05 8-12	Solid	08/04/11 11:30	08/10/11 11:44
5051484008	SB-080411-05 12-16	Solid	08/04/11 11:35	08/10/11 11:44
5051484009	SB-080411-06 12-14	Solid	08/04/11 12:00	08/10/11 11:44
5051484010	SB-080411-06 14-16	Solid	08/04/11 12:05	08/10/11 11:44
5051484011	SB-080411-07 8-12	Solid	08/04/11 12:30	08/10/11 11:44
5051484012	SB-080411-07 12-16	Solid	08/04/11 12:35	08/10/11 11:44
5051484013	SB-080411-08 2-4	Solid	08/04/11 14:00	08/10/11 11:44
5051484014	MW-1	Water	08/05/11 11:15	08/10/11 11:44
5051484015	MW-2	Water	08/05/11 12:00	08/10/11 11:44
5051484016	MW-3	Water	08/05/11 12:15	08/10/11 11:44
5051484017	MW-4	Water	08/05/11 12:45	08/10/11 11:44
5051484018	MW-5	Water	08/05/11 13:10	08/10/11 11:44
5051484019	MW-6	Water	08/05/11 13:45	08/10/11 11:44
5051484020	Trip Blank	Water	08/05/11 08:00	08/10/11 11:44

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Subject: Schafer Oil-Troy Marathon  
Project No.: 5051484

Lab ID	Sample ID	Method	Analysts	Analytes Reported
51484001	SB-080411-02 6-8	EPA 8015 Mod Ext	CEM	4
		EPA 8270 by SIM	RRB	19
		EPA 8260	SLB	7
		ASTM D2974-87	SLF	1
51484002	SB-080411-02 10-12	EPA 8015 Mod Ext	CEM	4
		EPA 8270 by SIM	RRB	19
		EPA 8260	SLB	7
		ASTM D2974-87	SLF	1
51484003	SB-080411-03 4-8	EPA 8015 Mod Ext	CEM	4
		EPA 8270 by SIM	RRB	19
		EPA 8260	SLB	7
		ASTM D2974-87	SLF	1
51484004	SB-080411-03 18-20	EPA 8015 Mod Ext	CEM	4
		EPA 8270 by SIM	RRB	19
		EPA 8260	SLB	7
		ASTM D2974-87	SLF	1
51484005	SB-080411-04 8-12	EPA 8015 Mod Ext	CEM	4
		EPA 8270 by SIM	RRB	19
		EPA 8260	SLB	7
		ASTM D2974-87	SLF	1
51484006	SB-080411-04 18-20	EPA 8015 Mod Ext	CEM	4
		EPA 8270 by SIM	RRB	19
		EPA 8260	SLB	7
		ASTM D2974-87	SLF	1
51484007	SB-080411-05 8-12	EPA 8015 Mod Ext	CEM	4
		EPA 8270 by SIM	RRB	19
		EPA 8260	SLB	7
		ASTM D2974-87	SLF	1
51484008	SB-080411-05 12-16	EPA 8015 Mod Ext	CEM	4
		EPA 8270 by SIM	RRB	19
		EPA 8260	SLB	7
		ASTM D2974-87	SLF	1
51484009	SB-080411-06 12-14	EPA 8015 Mod Ext	CEM	4
		EPA 8270 by SIM	RRB	19
		EPA 8260	SLB	7
		ASTM D2974-87	SLF	1
51484010	SB-080411-06 14-16	EPA 8015 Mod Ext	CEM	4

### REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: Schäfer Oil-Troy Marathon  
Pace Project No.: 5051484

Lab ID	Sample ID	Method	Analysts	Analytes Reported
5051484011	SB-080411-07 8-12	EPA 8270 by SIM	RRB	19
		EPA 8260	SLB	7
		ASTM D2974-87	SLF	1
		EPA 8015 Mod Ext	CEM	4
		EPA 8270 by SIM	RRB	19
5051484012	SB-080411-07 12-16	EPA 8260	SLB	7
		ASTM D2974-87	SLF	1
		EPA 8015 Mod Ext	CEM	4
		EPA 8270 by SIM	RRB	19
		EPA 8260	SLB	7
5051484013	SB-080411-08 2-4	ASTM D2974-87	SLF	1
		EPA 8015 Mod Ext	CEM	4
		EPA 8270 by SIM	RRB	19
		EPA 8260	SLB	7
		ASTM D2974-87	SLF	1
5051484014	MW-1	EPA 8270 by SIM	RRB	19
5051484015	MW-2	EPA 8260	AMV	7
		EPA 8270 by SIM	RRB	19
5051484016	MW-3	EPA 8260	AMV	7
		EPA 8270 by SIM	RRB	19
5051484017	MW-4	EPA 8260	AMV	7
		EPA 8270 by SIM	RRB	19
5051484018	MW-5	EPA 8260	AMV	7
		EPA 8270 by SIM	RRB	19
5051484019	MW-6	EPA 8260	AMV	7
		EPA 8270 by SIM	RRB	19
5051484020	Trip Blank	EPA 8260	AMV	7
		EPA 8260	AMV	7

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Schafer Oil-Troy Marathon  
Pace Project No.: 5051484

Sample: SB-080411-02 6-8 Lab ID: 5051484001 Collected: 08/04/11 10:00 Received: 08/10/11 11:44 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>15 TPH Ohio Microwave</b> Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546								
Total Petroleum Hydrocarbons	ND	mg/kg	21.1	1	08/12/11 02:00	08/12/11 10:30		
PH (C10-C20)	ND	mg/kg	10.5	1	08/12/11 02:00	08/12/11 10:30		
PH (C20-C34)	ND	mg/kg	10.5	1	08/12/11 02:00	08/12/11 10:30		
Pentacosane (S)	68	%	30-126	1	08/12/11 02:00	08/12/11 10:30	629-99-2	
<b>70 MSSV PAH by SIM 5ML</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Benaphthene	ND	ug/kg	5.3	1	08/12/11 02:30	08/13/11 21:01	83-32-9	
Benaphthylene	ND	ug/kg	5.3	1	08/12/11 02:30	08/13/11 21:01	208-96-8	
Thracene	ND	ug/kg	5.3	1	08/12/11 02:30	08/13/11 21:01	120-12-7	
Benz(a)anthracene	ND	ug/kg	5.3	1	08/12/11 02:30	08/13/11 21:01	56-55-3	
Benz(a)pyrene	ND	ug/kg	5.3	1	08/12/11 02:30	08/13/11 21:01	50-32-8	
Benz(b)fluoranthene	ND	ug/kg	5.3	1	08/12/11 02:30	08/13/11 21:01	205-99-2	
Benz(g,h,i)perylene	ND	ug/kg	5.3	1	08/12/11 02:30	08/13/11 21:01	191-24-2	
Benz(k)fluoranthene	ND	ug/kg	5.3	1	08/12/11 02:30	08/13/11 21:01	207-08-9	
Pyrene	ND	ug/kg	5.3	1	08/12/11 02:30	08/13/11 21:01	218-01-9	
Benz(a,h)anthracene	ND	ug/kg	5.3	1	08/12/11 02:30	08/13/11 21:01	53-70-3	
Fluoranthene	5.4	ug/kg	5.3	1	08/12/11 02:30	08/13/11 21:01	206-44-0	
Fluorene	ND	ug/kg	5.3	1	08/12/11 02:30	08/13/11 21:01	86-73-7	
Benzo(1,2,3-cd)pyrene	ND	ug/kg	5.3	1	08/12/11 02:30	08/13/11 21:01	193-39-5	
Methylnaphthalene	11.6	ug/kg	5.3	1	08/12/11 02:30	08/13/11 21:01	91-57-6	
Phthalene	ND	ug/kg	5.3	1	08/12/11 02:30	08/13/11 21:01	91-20-3	
Benanthrene	6.6	ug/kg	5.3	1	08/12/11 02:30	08/13/11 21:01	85-01-8	
Fluorene	7.0	ug/kg	5.3	1	08/12/11 02:30	08/13/11 21:01	129-00-0	
Fluorobiphenyl (S)	54	%	46-109	1	08/12/11 02:30	08/13/11 21:01	321-60-8	
Phenyl-d14 (S)	54	%	43-107	1	08/12/11 02:30	08/13/11 21:01	1718-51-0	
<b>50 MSV UST Low Level</b> Analytical Method: EPA 8260								
Benzene	ND	ug/kg	5.3	1		08/11/11 22:16	71-43-2	
Tolylbenzene	ND	ug/kg	5.3	1		08/11/11 22:16	100-41-4	
Xylene	ND	ug/kg	5.3	1		08/11/11 22:16	108-88-3	
Benzene (Total)	ND	ug/kg	10.5	1		08/11/11 22:16	1330-20-7	
Bromofluoromethane (S)	107	%	71-125	1		08/11/11 22:16	1868-53-7	
Benzene-d8 (S)	102	%	76-124	1		08/11/11 22:16	2037-26-5	
Bromofluorobenzene (S)	96	%	67-134	1		08/11/11 22:16	460-00-4	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87								
Percent Moisture	5.0	%	0.10	1		08/15/11 11:44		

## ANALYTICAL RESULTS

Project: Schafer Oil-Troy Marathon  
Pace Project No.: 5051484

Sample: SB-080411-02 10-12 Lab ID: 5051484002 Collected: 08/04/11 10:05 Received: 08/10/11 11:44 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Q
<b>8015 TPH Ohio Microwave</b> Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546								
Total Petroleum Hydrocarbons	28.6	mg/kg	21.5	1	08/12/11 02:00	08/12/11 10:37		
TPH (C10-C20)	26.5	mg/kg	10.7	1	08/12/11 02:00	08/12/11 10:37		
TPH (C20-C34)	ND	mg/kg	10.7	1	08/12/11 02:00	08/12/11 10:37		
n-Pentacosane (S)	73	%	30-126	1	08/12/11 02:00	08/12/11 10:37	629-99-2	
<b>8270 MSSV PAH by SIM SML</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	5.4	1	08/12/11 02:30	08/13/11 21:19	83-32-9	
Acenaphthylene	ND	ug/kg	5.4	1	08/12/11 02:30	08/13/11 21:19	208-96-8	
Anthracene	ND	ug/kg	5.4	1	08/12/11 02:30	08/13/11 21:19	120-12-7	
Benzo(a)anthracene	ND	ug/kg	5.4	1	08/12/11 02:30	08/13/11 21:19	56-55-3	
Benzo(a)pyrene	ND	ug/kg	5.4	1	08/12/11 02:30	08/13/11 21:19	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	5.4	1	08/12/11 02:30	08/13/11 21:19	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	5.4	1	08/12/11 02:30	08/13/11 21:19	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	5.4	1	08/12/11 02:30	08/13/11 21:19	207-08-9	
Chrysene	ND	ug/kg	5.4	1	08/12/11 02:30	08/13/11 21:19	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	5.4	1	08/12/11 02:30	08/13/11 21:19	53-70-3	
Fluoranthene	ND	ug/kg	5.4	1	08/12/11 02:30	08/13/11 21:19	206-44-0	
Fluorene	ND	ug/kg	5.4	1	08/12/11 02:30	08/13/11 21:19	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	5.4	1	08/12/11 02:30	08/13/11 21:19	193-39-5	
2-Methylnaphthalene	25.2	ug/kg	5.4	1	08/12/11 02:30	08/13/11 21:19	91-57-6	
Naphthalene	11.5	ug/kg	5.4	1	08/12/11 02:30	08/13/11 21:19	91-20-3	
Phenanthrene	5.7	ug/kg	5.4	1	08/12/11 02:30	08/13/11 21:19	85-01-8	
Pyrene	ND	ug/kg	5.4	1	08/12/11 02:30	08/13/11 21:19	129-00-0	
2-Fluorobiphenyl (S)	61	%	46-109	1	08/12/11 02:30	08/13/11 21:19	321-60-8	
Terphenyl-d14 (S)	62	%	43-107	1	08/12/11 02:30	08/13/11 21:19	1718-51-0	
<b>8260 MSV UST Low Level</b> Analytical Method: EPA 8260								
Benzene	ND	ug/kg	5.4	1		08/11/11 14:09	71-43-2	
Ethylbenzene	ND	ug/kg	5.4	1		08/11/11 14:09	100-41-4	
Toluene	ND	ug/kg	5.4	1		08/11/11 14:09	108-88-3	
Xylene (Total)	ND	ug/kg	10.7	1		08/11/11 14:09	1330-20-7	
Dibromofluoromethane (S)	107	%	71-125	1		08/11/11 14:09	1868-53-7	
Toluene-d8 (S)	99	%	76-124	1		08/11/11 14:09	2037-26-5	
4-Bromofluorobenzene (S)	104	%	67-134	1		08/11/11 14:09	460-00-4	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87								
Percent Moisture	6.8	%	0.10	1		08/15/11 11:44		

## ANALYTICAL RESULTS

Project: Schafer Oil-Troy Marathon

Pace Project No.: 5051484

Sample: SB-080411-03 4-B Lab ID: 5051484003 Collected: 08/04/11 10:25 Received: 08/10/11 11:44 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>015 TPH Ohio Microwave</b> Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546								
Total Petroleum Hydrocarbons	ND	mg/kg	20.9	1	08/12/11 02:00	08/12/11 09:48		
PH (C10-C20)	ND	mg/kg	10.5	1	08/12/11 02:00	08/12/11 09:48		
PH (C20-C34)	ND	mg/kg	10.5	1	08/12/11 02:00	08/12/11 09:48		
-Pentacosane (S)	67	%	30-126	1	08/12/11 02:00	08/12/11 09:48	629-99-2	
<b>270 MSSV PAH by SIM 5ML</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
benzophenanthrene	ND	ug/kg	5.2	1	08/12/11 02:30	08/13/11 21:36	83-32-9	
benzophenylene	ND	ug/kg	5.2	1	08/12/11 02:30	08/13/11 21:36	208-96-8	
anthracene	ND	ug/kg	5.2	1	08/12/11 02:30	08/13/11 21:36	120-12-7	
benzo(a)anthracene	ND	ug/kg	5.2	1	08/12/11 02:30	08/13/11 21:36	56-55-3	
benzo(a)pyrene	ND	ug/kg	5.2	1	08/12/11 02:30	08/13/11 21:36	50-32-8	
benzo(b)fluoranthene	ND	ug/kg	5.2	1	08/12/11 02:30	08/13/11 21:36	205-99-2	
benzo(g,h,i)perylene	ND	ug/kg	5.2	1	08/12/11 02:30	08/13/11 21:36	191-24-2	
benzo(k)fluoranthene	ND	ug/kg	5.2	1	08/12/11 02:30	08/13/11 21:36	207-08-9	
chrysene	ND	ug/kg	5.2	1	08/12/11 02:30	08/13/11 21:36	218-01-9	
benz(a,h)anthracene	ND	ug/kg	5.2	1	08/12/11 02:30	08/13/11 21:36	53-70-3	
fluoranthene	ND	ug/kg	5.2	1	08/12/11 02:30	08/13/11 21:36	206-44-0	
luorene	ND	ug/kg	5.2	1	08/12/11 02:30	08/13/11 21:36	86-73-7	
indeno(1,2,3-cd)pyrene	ND	ug/kg	5.2	1	08/12/11 02:30	08/13/11 21:36	193-39-5	
-Methylnaphthalene	ND	ug/kg	5.2	1	08/12/11 02:30	08/13/11 21:36	91-57-6	
aphthalene	ND	ug/kg	5.2	1	08/12/11 02:30	08/13/11 21:36	91-20-3	
benanthrene	ND	ug/kg	5.2	1	08/12/11 02:30	08/13/11 21:36	85-01-8	
pyrene	ND	ug/kg	5.2	1	08/12/11 02:30	08/13/11 21:36	129-00-0	
-Fluorobiphenyl (S)	53	%	46-109	1	08/12/11 02:30	08/13/11 21:36	321-60-8	
arphenyl-d14 (S)	52	%	43-107	1	08/12/11 02:30	08/13/11 21:36	1718-51-0	
<b>260 MSV UST Low Level</b> Analytical Method: EPA 8260								
benzene	ND	ug/kg	5.2	1		08/11/11 15:24	71-43-2	
ethylbenzene	ND	ug/kg	5.2	1		08/11/11 15:24	100-41-4	
toluene	ND	ug/kg	5.2	1		08/11/11 15:24	108-88-3	
xylene (Total)	ND	ug/kg	10.5	1		08/11/11 15:24	1330-20-7	
monobromofluoromethane (S)	107	%	71-125	1		08/11/11 15:24	1868-53-7	
diene-d8 (S)	103	%	76-124	1		08/11/11 15:24	2037-26-5	
-Bromofluorobenzene (S)	96	%	67-134	1		08/11/11 15:24	460-00-4	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87								
Percent Moisture	4.5	%	0.10	1		08/15/11 11:44		

Date: 08/23/2011 12:53 PM

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Schafer Oil-Troy Marathon  
Pace Project No.: 5051484

Sample: SB-080411-03 18-20 Lab ID: 5051484004 Collected: 08/04/11 10:45 Received: 08/10/11 11:44 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.
<b>8015 TPH Ohio Microwave</b> Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546							
Total Petroleum Hydrocarbons	ND mg/kg		21.9	1	08/12/11 02:00	08/12/11 10:44	
TPH (C10-C20)	ND mg/kg		11.0	1	08/12/11 02:00	08/12/11 10:44	
TPH (C20-C34)	ND mg/kg		11.0	1	08/12/11 02:00	08/12/11 10:44	
n-Pentacosane (S)	61 %		30-126	1	08/12/11 02:00	08/12/11 10:44	629-99-2
<b>8270 MSSV PAH by SIM 5ML</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	ND ug/kg		5.5	1	08/12/11 02:30	08/13/11 21:54	83-32-9
Acenaphthylene	ND ug/kg		5.5	1	08/12/11 02:30	08/13/11 21:54	208-96-8
Anthracene	ND ug/kg		5.5	1	08/12/11 02:30	08/13/11 21:54	120-12-7
Benzo(a)anthracene	ND ug/kg		5.5	1	08/12/11 02:30	08/13/11 21:54	56-55-3
Benzo(a)pyrene	ND ug/kg		5.5	1	08/12/11 02:30	08/13/11 21:54	50-32-8
Benzo(b)fluoranthene	ND ug/kg		5.5	1	08/12/11 02:30	08/13/11 21:54	205-99-2
Benzo(g,h,i)perylene	ND ug/kg		5.5	1	08/12/11 02:30	08/13/11 21:54	191-24-2
Benzo(k)fluoranthene	ND ug/kg		5.5	1	08/12/11 02:30	08/13/11 21:54	207-08-9
Chrysene	ND ug/kg		5.5	1	08/12/11 02:30	08/13/11 21:54	218-01-9
Dibenz(a,h)anthracene	ND ug/kg		5.5	1	08/12/11 02:30	08/13/11 21:54	53-70-3
Fluoranthene	ND ug/kg		5.5	1	08/12/11 02:30	08/13/11 21:54	206-44-0
Fluorene	ND ug/kg		5.5	1	08/12/11 02:30	08/13/11 21:54	86-73-7
Indeno(1,2,3-cd)pyrene	ND ug/kg		5.5	1	08/12/11 02:30	08/13/11 21:54	193-39-5
2-Methylnaphthalene	ND ug/kg		5.5	1	08/12/11 02:30	08/13/11 21:54	91-57-6
Naphthalene	ND ug/kg		5.5	1	08/12/11 02:30	08/13/11 21:54	91-20-3
Phenanthrene	ND ug/kg		5.5	1	08/12/11 02:30	08/13/11 21:54	85-01-8
Pyrene	ND ug/kg		5.5	1	08/12/11 02:30	08/13/11 21:54	129-00-0
2-Fluorobiphenyl (S)	59 %		46-109	1	08/12/11 02:30	08/13/11 21:54	321-60-8
Terphenyl-d14 (S)	48 %		43-107	1	08/12/11 02:30	08/13/11 21:54	1718-51-0
<b>8260 MSV UST Low Level</b> Analytical Method: EPA 8260							
Benzene	ND ug/kg		5.5	1		08/11/11 17:16	71-43-2
Ethylbenzene	ND ug/kg		5.5	1		08/11/11 17:16	100-41-4
Toluene	ND ug/kg		5.5	1		08/11/11 17:16	108-88-3
Xylene (Total)	ND ug/kg		11.0	1		08/11/11 17:16	1330-20-7
Dibromofluoromethane (S)	109 %		71-125	1		08/11/11 17:16	1868-53-7
Toluene-d8 (S)	103 %		76-124	1		08/11/11 17:16	2037-26-5
4-Bromofluorobenzene (S)	96 %		67-134	1		08/11/11 17:16	460-00-4
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87							
Percent Moisture	8.7 %		0.10	1		08/15/11 11:44	

## ANALYTICAL RESULTS

Project: Schafer Oil-Troy Marathon

Project No.: 5051484

Sample: SB-080411-04 8-12 Lab ID: 5051484005 Collected: 08/04/11 11:00 Received: 08/10/11 11:44 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>15 TPH Ohio Microwave</b>								
Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546								
al Petroleum Hydrocarbons	50.3	mg/kg	21.8	1	08/12/11 02:00	08/12/11 10:51		
H (C10-C20)	48.2	mg/kg	10.9	1	08/12/11 02:00	08/12/11 10:51		
H (C20-C34)	ND	mg/kg	10.9	1	08/12/11 02:00	08/12/11 10:51		
pentacosane (S)	69	%	30-126	1	08/12/11 02:00	08/12/11 10:51	629-99-2	
<b>70 MSSV PAH by SIM 5ML</b>								
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
benaphthene	6.0	ug/kg	5.5	1	08/12/11 02:30	08/13/11 22:12	83-32-9	
benaphthylene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 22:12	208-96-8	
thracene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 22:12	120-12-7	
nzo(a)anthracene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 22:12	56-55-3	
nzo(a)pyrene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 22:12	50-32-8	
nzo(b)fluoranthene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 22:12	205-99-2	
nzo(g,h,i)perylene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 22:12	191-24-2	
nzo(k)fluoranthene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 22:12	207-08-9	
rysene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 22:12	218-01-9	
benz(a,h)anthracene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 22:12	53-70-3	
ioranthene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 22:12	206-44-0	
iorene	6.3	ug/kg	5.5	1	08/12/11 02:30	08/13/11 22:12	86-73-7	
leno(1,2,3-cd)pyrene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 22:12	193-39-5	
Methylnaphthalene	29.7	ug/kg	5.5	1	08/12/11 02:30	08/13/11 22:12	91-57-6	
phthalene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 22:12	91-20-3	
enanthrene	10.9	ug/kg	5.5	1	08/12/11 02:30	08/13/11 22:12	85-01-8	
rene	5.8	ug/kg	5.5	1	08/12/11 02:30	08/13/11 22:12	129-00-0	
fluorobiphenyl (S)	62	%	46-109	1	08/12/11 02:30	08/13/11 22:12	321-60-8	
phenyl-d14 (S)	64	%	43-107	1	08/12/11 02:30	08/13/11 22:12	1718-51-0	
<b>50 MSV UST Low Level</b>								
Analytical Method: EPA 8260								
nzene	ND	ug/kg	273	50		08/11/11 17:53	71-43-2	2d,D3
ylbenzene	ND	ug/kg	273	50		08/11/11 17:53	100-41-4	
uene	ND	ug/kg	273	50		08/11/11 17:53	108-88-3	
lene (Total)	ND	ug/kg	546	50		08/11/11 17:53	1330-20-7	
romofluoromethane (S)	105	%	71-125	50		08/11/11 17:53	1868-53-7	
uene-d8 (S)	101	%	76-124	50		08/11/11 17:53	2037-26-5	
3romofluorobenzene (S)	99	%	67-134	50		08/11/11 17:53	460-00-4	
<b>Recent Moisture</b>								
Analytical Method: ASTM D2974-87								
Recent Moisture	8.4	%	0.10	1		08/15/11 11:45		

## ANALYTICAL RESULTS

Project: Schafer Oil-Troy Marathon  
Pace Project No.: 5051484

Sample: SB-080411-04 18-20 Lab ID: 5051484006 Collected: 08/04/11 11:20 Received: 08/10/11 11:44 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qty
<b>8015 TPH Ohio Microwave</b> Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546								
Total Petroleum Hydrocarbons	ND	mg/kg	22.4	1	08/12/11 02:00	08/12/11 09:55		
TPH (C10-C20)	ND	mg/kg	11.2	1	08/12/11 02:00	08/12/11 09:55		
TPH (C20-C34)	ND	mg/kg	11.2	1	08/12/11 02:00	08/12/11 09:55		
n-Pentacosane (S)	61	%	30-126	1	08/12/11 02:00	08/12/11 09:55	629-99-2	
<b>8270 MSSV PAH by SIM 5ML</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 22:29	83-32-9	
Acenaphthylene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 22:29	208-96-8	
Anthracene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 22:29	120-12-7	
Benzo(a)anthracene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 22:29	56-55-3	
Benzo(a)pyrene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 22:29	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 22:29	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 22:29	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 22:29	207-08-9	
Chrysene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 22:29	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 22:29	53-70-3	
Fluoranthene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 22:29	206-44-0	
Fluorene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 22:29	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 22:29	193-39-5	
2-Methylnaphthalene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 22:29	91-57-6	
Naphthalene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 22:29	91-20-3	
Phenanthrene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 22:29	85-01-8	
Pyrene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 22:29	129-00-0	
2-Fluorobiphenyl (S)	58	%	46-109	1	08/12/11 02:30	08/13/11 22:29	321-60-8	
Terphenyl-d14 (S)	48	%	43-107	1	08/12/11 02:30	08/13/11 22:29	1718-51-0	
<b>8260 MSV UST Low Level</b> Analytical Method: EPA 8260								
Benzene	ND	ug/kg	5.6	1		08/11/11 14:27	71-43-2	
Ethylbenzene	ND	ug/kg	5.6	1		08/11/11 14:27	100-41-4	
Toluene	ND	ug/kg	5.6	1		08/11/11 14:27	108-88-3	
Xylene (Total)	ND	ug/kg	11.2	1		08/11/11 14:27	1330-20-7	
Dibromofluoromethane (S)	106	%	71-125	1		08/11/11 14:27	1868-53-7	
Toluene-d8 (S)	97	%	76-124	1		08/11/11 14:27	2037-26-5	
4-Bromofluorobenzene (S)	103	%	67-134	1		08/11/11 14:27	460-00-4	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87								
Percent Moisture	10.6	%	0.10	1		08/15/11 11:45		

## ANALYTICAL RESULTS

Project: Schafer Oil-Troy Marathon

Pace Project No.: 5051484

Sample: SB-080411-05 8-12 Lab ID: 5051484007 Collected: 08/04/11 11:30 Received: 08/10/11 11:44 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 TPH Ohio Microwave</b> Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546								
Total Petroleum Hydrocarbons	222	mg/kg	24.0	1	08/12/11 02:00	08/12/11 10:02		
TPH (C10-C20)	219	mg/kg	12.0	1	08/12/11 02:00	08/12/11 10:02		
TPH (C20-C34)	ND	mg/kg	12.0	1	08/12/11 02:00	08/12/11 10:02		
n-Pentacosane (S)	78	%	30-126	1	08/12/11 02:00	08/12/11 10:02	629-99-2	
<b>8270 MSSV PAH by SIM 5ML</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	22.7	ug/kg	6.0	1	08/12/11 02:30	08/13/11 22:47	83-32-9	
Acenaphthylene	ND	ug/kg	6.0	1	08/12/11 02:30	08/13/11 22:47	208-96-8	
Anthracene	ND	ug/kg	6.0	1	08/12/11 02:30	08/13/11 22:47	120-12-7	
Benzo(a)anthracene	ND	ug/kg	6.0	1	08/12/11 02:30	08/13/11 22:47	56-55-3	
Benzo(a)pyrene	ND	ug/kg	6.0	1	08/12/11 02:30	08/13/11 22:47	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	6.0	1	08/12/11 02:30	08/13/11 22:47	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	6.0	1	08/12/11 02:30	08/13/11 22:47	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	6.0	1	08/12/11 02:30	08/13/11 22:47	207-08-9	
Chrysene	ND	ug/kg	6.0	1	08/12/11 02:30	08/13/11 22:47	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	6.0	1	08/12/11 02:30	08/13/11 22:47	53-70-3	
Fluoranthene	6.4	ug/kg	6.0	1	08/12/11 02:30	08/13/11 22:47	206-44-0	
Fluorene	12.6	ug/kg	6.0	1	08/12/11 02:30	08/13/11 22:47	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	6.0	1	08/12/11 02:30	08/13/11 22:47	193-39-5	
2-Methylnaphthalene	4360	ug/kg	59.9	10	08/12/11 02:30	08/15/11 01:38	91-57-6	
Naphthalene	3210	ug/kg	59.9	10	08/12/11 02:30	08/15/11 01:38	91-20-3	
Phenanthrene	19.0	ug/kg	6.0	1	08/12/11 02:30	08/13/11 22:47	85-01-8	
Pyrene	7.5	ug/kg	6.0	1	08/12/11 02:30	08/13/11 22:47	129-00-0	
2-Fluorobiphenyl (S)	60	%	46-109	1	08/12/11 02:30	08/13/11 22:47	321-60-8	
Terphenyl-d14 (S)	60	%	43-107	1	08/12/11 02:30	08/13/11 22:47	1718-51-0	
<b>8260 MSV UST Low Level</b> Analytical Method: EPA 8260								
Benzene	ND	ug/kg	599	100		08/11/11 15:05	71-43-2	2d,D3
Ethylbenzene	9220	ug/kg	599	100		08/11/11 15:05	100-41-4	
Toluene	ND	ug/kg	599	100		08/11/11 15:05	108-88-3	
Xylene (Total)	2160	ug/kg	1200	100		08/11/11 15:05	1330-20-7	
Dibromofluoromethane (S)	106	%	71-125	100		08/11/11 15:05	1868-53-7	
Toluene-d8 (S)	96	%	76-124	100		08/11/11 15:05	2037-26-5	
4-Bromofluorobenzene (S)	116	%	67-134	100		08/11/11 15:05	460-00-4	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87								
Percent Moisture	16.6	%	0.10	1		08/15/11 11:45		

Date: 08/23/2011 12:53 PM

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Schafer Oil-Troy Marathon

Pace Project No.: 5051484

Sample: SB-080411-05 12-16 Lab ID: 5051484008 Collected: 08/04/11 11:35 Received: 08/10/11 11:44 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Q
<b>8015 TPH Ohio Microwave</b> Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546								
Total Petroleum Hydrocarbons	ND	mg/kg	22.3	1	08/12/11 02:00	08/12/11 11:05		
TPH (C10-C20)	ND	mg/kg	11.1	1	08/12/11 02:00	08/12/11 11:05		
TPH (C20-C34)	ND	mg/kg	11.1	1	08/12/11 02:00	08/12/11 11:05		
n-Pentacosane (S)	69	%	30-126	1	08/12/11 02:00	08/12/11 11:05	629-99-2	
<b>8270 MSSV PAH by SIM 5ML</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 23:05	83-32-9	
Acenaphthylene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 23:05	208-96-8	
Anthracene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 23:05	120-12-7	
Benzo(a)anthracene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 23:05	56-55-3	
Benzo(a)pyrene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 23:05	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 23:05	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 23:05	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 23:05	207-08-9	
Chrysene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 23:05	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 23:05	53-70-3	
Fluoranthene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 23:05	206-44-0	
Fluorene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 23:05	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 23:05	193-39-5	
2-Methylnaphthalene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 23:05	91-57-6	
Naphthalene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 23:05	91-20-3	
Phenanthrene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 23:05	85-01-8	
Pyrene	ND	ug/kg	5.6	1	08/12/11 02:30	08/13/11 23:05	129-00-0	
2-Fluorobiphenyl (S)	60	%	46-109	1	08/12/11 02:30	08/13/11 23:05	321-60-8	
Terphenyl-d14 (S)	43	%	43-107	1	08/12/11 02:30	08/13/11 23:05	1718-51-0	
<b>8260 MSV UST Low Level</b> Analytical Method: EPA 8260								
Benzene	ND	ug/kg	5.6	1		08/11/11 16:20	71-43-2	
Ethylbenzene	ND	ug/kg	5.6	1		08/11/11 16:20	100-41-4	
Toluene	ND	ug/kg	5.6	1		08/11/11 16:20	108-88-3	
Xylene (Total)	ND	ug/kg	11.1	1		08/11/11 16:20	1330-20-7	
Dibromofluoromethane (S)	107	%	71-125	1		08/11/11 16:20	1868-53-7	
Toluene-d8 (S)	97	%	76-124	1		08/11/11 16:20	2037-26-5	
4-Bromofluorobenzene (S)	105	%	67-134	1		08/11/11 16:20	460-00-4	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87								
Percent Moisture	10.3	%	0.10	1		08/15/11 11:45		

Date: 08/23/2011 12:53 PM

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Schafer Oil-Troy Marathon

Project No.: 5051484

Sample: SB-080411-06 12-14 Lab ID: 5051484009 Collected: 08/04/11 12:00 Received: 08/10/11 11:44 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>015 TPH Ohio Microwave</b> Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546								
Total Petroleum Hydrocarbons	ND	mg/kg	23.1	1	08/12/11 02:00	08/12/11 10:58		
PH (C10-C20)	ND	mg/kg	11.6	1	08/12/11 02:00	08/12/11 10:58		
PH (C20-C34)	ND	mg/kg	11.6	1	08/12/11 02:00	08/12/11 10:58		
n-Pentacosane (S)	73	%	30-126	1	08/12/11 02:00	08/12/11 10:58	629-99-2	
<b>1270 MSSV PAH by SIM 5ML</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	5.8	1	08/12/11 02:30	08/13/11 23:23	83-32-9	
Acenaphthylene	ND	ug/kg	5.8	1	08/12/11 02:30	08/13/11 23:23	208-96-8	
Anthracene	ND	ug/kg	5.8	1	08/12/11 02:30	08/13/11 23:23	120-12-7	
Benzo(a)anthracene	ND	ug/kg	5.8	1	08/12/11 02:30	08/13/11 23:23	56-55-3	
Benzo(a)pyrene	ND	ug/kg	5.8	1	08/12/11 02:30	08/13/11 23:23	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	5.8	1	08/12/11 02:30	08/13/11 23:23	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	5.8	1	08/12/11 02:30	08/13/11 23:23	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	5.8	1	08/12/11 02:30	08/13/11 23:23	207-08-9	
Chrysene	ND	ug/kg	5.8	1	08/12/11 02:30	08/13/11 23:23	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	5.8	1	08/12/11 02:30	08/13/11 23:23	53-70-3	
Fluoranthene	ND	ug/kg	5.8	1	08/12/11 02:30	08/13/11 23:23	206-44-0	
Fluorene	ND	ug/kg	5.8	1	08/12/11 02:30	08/13/11 23:23	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	5.8	1	08/12/11 02:30	08/13/11 23:23	193-39-5	
2-Methylnaphthalene	ND	ug/kg	5.8	1	08/12/11 02:30	08/13/11 23:23	91-57-6	
Naphthalene	ND	ug/kg	5.8	1	08/12/11 02:30	08/13/11 23:23	91-20-3	
Phenanthrene	ND	ug/kg	5.8	1	08/12/11 02:30	08/13/11 23:23	85-01-8	
Pyrene	ND	ug/kg	5.8	1	08/12/11 02:30	08/13/11 23:23	129-00-0	
2-Fluorobiphenyl (S)	63	%	46-109	1	08/12/11 02:30	08/13/11 23:23	321-60-8	
Terphenyl-d14 (S)	53	%	43-107	1	08/12/11 02:30	08/13/11 23:23	1718-51-0	
<b>8260 MSV UST Low Level</b> Analytical Method: EPA 8260								
Benzene	ND	ug/kg	5.8	1		08/11/11 16:57	71-43-2	
Ethylbenzene	ND	ug/kg	5.8	1		08/11/11 16:57	100-41-4	
Toluene	ND	ug/kg	5.8	1		08/11/11 16:57	108-88-3	
Xylene (Total)	ND	ug/kg	11.6	1		08/11/11 16:57	1330-20-7	
Dibromofluoromethane (S)	107	%	71-125	1		08/11/11 16:57	1868-53-7	
Toluene-d8 (S)	98	%	76-124	1		08/11/11 16:57	2037-26-5	
4-Bromofluorobenzene (S)	103	%	67-134	1		08/11/11 16:57	460-00-4	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87								
Percent Moisture	13.4	%	0.10	1		08/15/11 11:45		

Date: 08/23/2011 12:53 PM

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## ANALYTICAL RESULTS

Project: Schafer Oil-Troy Marathon  
Pace Project No.: 5051484

Sample: SB-080411-06 14-16 Lab ID: 5051484010 Collected: 08/04/11 12:05 Received: 08/10/11 11:44 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	C
<b>8015 TPH Ohio Microwave</b>								
Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546								
Total Petroleum Hydrocarbons	ND	mg/kg	21.8	1	08/12/11 02:00	08/12/11 10:09		
TPH (C10-C20)	ND	mg/kg	10.9	1	08/12/11 02:00	08/12/11 10:09		
TPH (C20-C34)	ND	mg/kg	10.9	1	08/12/11 02:00	08/12/11 10:09		
n-Pentacosane (S)	74	%	30-126	1	08/12/11 02:00	08/12/11 10:09	629-99-2	
<b>8270 MSSV PAH by SIM 5ML</b>								
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 23:40	83-32-9	
Acenaphthylene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 23:40	208-96-8	
Anthracene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 23:40	120-12-7	
Benzo(a)anthracene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 23:40	56-55-3	
Benzo(a)pyrene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 23:40	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 23:40	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 23:40	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 23:40	207-08-9	
Chrysene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 23:40	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 23:40	53-70-3	
Fluoranthene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 23:40	206-44-0	
Fluorene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 23:40	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 23:40	193-39-5	
2-Methylnaphthalene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 23:40	91-57-6	
Naphthalene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 23:40	91-20-3	
Phenanthrene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 23:40	85-01-8	
Pyrene	ND	ug/kg	5.5	1	08/12/11 02:30	08/13/11 23:40	129-00-0	
2-Fluorobiphenyl (S)	62	%	46-109	1	08/12/11 02:30	08/13/11 23:40	321-60-8	
Terphenyl-d14 (S)	56	%	43-107	1	08/12/11 02:30	08/13/11 23:40	1718-51-0	
<b>8260 MSV UST Low Level</b>								
Analytical Method: EPA 8260								
Benzene	ND	ug/kg	5.5	1		08/11/11 18:49	71-43-2	
Ethylbenzene	ND	ug/kg	5.5	1		08/11/11 18:49	100-41-4	
Toluene	ND	ug/kg	5.5	1		08/11/11 18:49	108-88-3	
Xylene (Total)	ND	ug/kg	10.9	1		08/11/11 18:49	1330-20-7	
Dibromofluoromethane (S)	108	%	71-125	1		08/11/11 18:49	1868-53-7	
Toluene-d8 (S)	98	%	76-124	1		08/11/11 18:49	2037-26-5	
4-Bromofluorobenzene (S)	103	%	67-134	1		08/11/11 18:49	460-00-4	
<b>Percent Moisture</b>								
Analytical Method: ASTM D2974-87								
Percent Moisture	8.4	%	0.10	1		08/15/11 11:45		

## ANALYTICAL RESULTS

Schafer Oil-Troy Marathon

Project No.: 5051484

SB-080411-07 8-12 Lab ID: 5051484011 Collected: 08/04/11 12:30 Received: 08/10/11 11:44 Matrix: Solid

reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>PH Ohio Microwave</b> Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546								
petroleum Hydrocarbons	81.0 mg/kg		22.4	1	08/12/11 02:00	08/12/11 10:16		
10-C20)	79.6 mg/kg		11.2	1	08/12/11 02:00	08/12/11 10:16		
20-C34)	ND mg/kg		11.2	1	08/12/11 02:00	08/12/11 10:16		
icosane (S)	72 %		30-126	1	08/12/11 02:00	08/12/11 10:16	629-99-2	
<b>SSV PAH by SIM 5ML</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
anthene	8.3 ug/kg		5.6	1	08/17/11 13:38	08/17/11 20:28	83-32-9	
anthylene	ND ug/kg		5.6	1	08/17/11 13:38	08/17/11 20:28	208-96-8	
ene	ND ug/kg		5.6	1	08/17/11 13:38	08/17/11 20:28	120-12-7	
a)anthracene	ND ug/kg		5.6	1	08/17/11 13:38	08/17/11 20:28	56-55-3	
a)pyrene	ND ug/kg		5.6	1	08/17/11 13:38	08/17/11 20:28	50-32-8	
b)fluoranthene	ND ug/kg		5.6	1	08/17/11 13:38	08/17/11 20:28	205-99-2	
g,h,i)perylene	ND ug/kg		5.6	1	08/17/11 13:38	08/17/11 20:28	191-24-2	
k)fluoranthene	ND ug/kg		5.6	1	08/17/11 13:38	08/17/11 20:28	207-08-9	
ne	ND ug/kg		5.6	1	08/17/11 13:38	08/17/11 20:28	218-01-9	
(a,h)anthracene	ND ug/kg		5.6	1	08/17/11 13:38	08/17/11 20:28	53-70-3	
anthene	ND ug/kg		5.6	1	08/17/11 13:38	08/17/11 20:28	206-44-0	
ne	6.2 ug/kg		5.6	1	08/17/11 13:38	08/17/11 20:28	86-73-7	
(1,2,3-cd)pyrene	ND ug/kg		5.6	1	08/17/11 13:38	08/17/11 20:28	193-39-5	
lynaphthalene	1230 ug/kg		5.6	1	08/17/11 13:38	08/17/11 20:28	91-57-6	
alene	622 ug/kg		5.6	1	08/17/11 13:38	08/17/11 20:28	91-20-3	
anthrene	9.5 ug/kg		5.6	1	08/17/11 13:38	08/17/11 20:28	85-01-8	
	ND ug/kg		5.6	1	08/17/11 13:38	08/17/11 20:28	129-00-0	
robiphenyl (S)	71 %		46-109	1	08/17/11 13:38	08/17/11 20:28	321-60-8	
nyl-d14 (S)	80 %		43-107	1	08/17/11 13:38	08/17/11 20:28	1718-51-0	
<b>ASV UST Low Level</b> Analytical Method: EPA 8260								
ne	ND ug/kg		561	100		08/12/11 00:08	71-43-2	2d,D3
enzene	6250 ug/kg		561	100		08/12/11 00:08	100-41-4	
ie	ND ug/kg		561	100		08/12/11 00:08	108-88-3	
(Total)	ND ug/kg		1120	100		08/12/11 00:08	1330-20-7	
nofluoromethane (S)	108 %		71-125	100		08/12/11 00:08	1868-53-7	
ie-d8 (S)	99 %		76-124	100		08/12/11 00:08	2037-26-5	
nofluorobenzene (S)	112 %		67-134	100		08/12/11 00:08	460-00-4	
<b>nt Moisture</b> Analytical Method: ASTM D2974-87								
nt Moisture	10.9 %		0.10	1		08/15/11 11:46		

## ANALYTICAL RESULTS

Project: Schafer Oil-Troy Marathon

Pace Project No.: 5051484

Sample: SB-080411-07 12-16 Lab ID: 5051484012 Collected: 08/04/11 12:35 Received: 08/10/11 11:44 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8015 TPH Ohio Microwave</b> Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546								
Total Petroleum Hydrocarbons	ND	mg/kg	22.0	1	08/12/11 02:00	08/12/11 10:23		
TPH (C10-C20)	ND	mg/kg	11.0	1	08/12/11 02:00	08/12/11 10:23		
TPH (C20-C34)	ND	mg/kg	11.0	1	08/12/11 02:00	08/12/11 10:23		
n-Pentacosane (S)	62	%	30-126	1	08/12/11 02:00	08/12/11 10:23	629-99-2	
<b>8270 MSSV PAH by SIM 5ML</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	5.5	1	08/12/11 02:30	08/14/11 00:16	83-32-9	
Acenaphthylene	ND	ug/kg	5.5	1	08/12/11 02:30	08/14/11 00:16	208-96-8	
Anthracene	ND	ug/kg	5.5	1	08/12/11 02:30	08/14/11 00:16	120-12-7	
Benzo(a)anthracene	ND	ug/kg	5.5	1	08/12/11 02:30	08/14/11 00:16	56-55-3	
Benzo(a)pyrene	ND	ug/kg	5.5	1	08/12/11 02:30	08/14/11 00:16	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	5.5	1	08/12/11 02:30	08/14/11 00:16	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	5.5	1	08/12/11 02:30	08/14/11 00:16	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	5.5	1	08/12/11 02:30	08/14/11 00:16	207-08-9	
Chrysene	ND	ug/kg	5.5	1	08/12/11 02:30	08/14/11 00:16	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	5.5	1	08/12/11 02:30	08/14/11 00:16	53-70-3	
Fluoranthene	ND	ug/kg	5.5	1	08/12/11 02:30	08/14/11 00:16	206-44-0	
Fluorene	ND	ug/kg	5.5	1	08/12/11 02:30	08/14/11 00:16	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	5.5	1	08/12/11 02:30	08/14/11 00:16	193-39-5	
2-Methylnaphthalene	ND	ug/kg	5.5	1	08/12/11 02:30	08/14/11 00:16	91-57-6	
Naphthalene	ND	ug/kg	5.5	1	08/12/11 02:30	08/14/11 00:16	91-20-3	
Phenanthrene	ND	ug/kg	5.5	1	08/12/11 02:30	08/14/11 00:16	85-01-8	
Pyrene	ND	ug/kg	5.5	1	08/12/11 02:30	08/14/11 00:16	129-00-0	
2-Fluorobiphenyl (S)	53	%	46-109	1	08/12/11 02:30	08/14/11 00:16	321-60-8	
Terphenyl-d14 (S)	46	%	43-107	1	08/12/11 02:30	08/14/11 00:16	1718-51-0	
<b>8260 MSV UST Low Level</b> Analytical Method: EPA 8260								
Benzene	ND	ug/kg	5.5	1		08/11/11 19:27	71-43-2	
Ethylbenzene	ND	ug/kg	5.5	1		08/11/11 19:27	100-41-4	
Toluene	ND	ug/kg	5.5	1		08/11/11 19:27	108-88-3	
Xylene (Total)	ND	ug/kg	11.0	1		08/11/11 19:27	1330-20-7	
Dibromofluoromethane (S)	108	%	71-125	1		08/11/11 19:27	1868-53-7	
Toluene-d8 (S)	98	%	76-124	1		08/11/11 19:27	2037-26-5	
4-Bromofluorobenzene (S)	104	%	67-134	1		08/11/11 19:27	460-00-4	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87								
Percent Moisture	9.2	%	0.10	1		08/15/11 11:46		

## ANALYTICAL RESULTS

ect: Schafer Oil-Troy Marathon

e Project No.: 5051484

ple: SB-080411-08 2-4 Lab ID: 5051484013 Collected: 08/04/11 14:00 Received: 08/10/11 11:44 Matrix: Solid

its reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>TPH Ohio Microwave</b>								
Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546								
Petroleum Hydrocarbons	ND	mg/kg	22.8	1	08/12/11 02:00	08/12/11 08:53		
(C10-C20)	ND	mg/kg	11.4	1	08/12/11 02:00	08/12/11 08:53		
(C20-C34)	ND	mg/kg	11.4	1	08/12/11 02:00	08/12/11 08:53		
tracosane (S)	76	%	30-126	1	08/12/11 02:00	08/12/11 08:53	629-99-2	
<b>MSSV PAH by SIM SML</b>								
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
aphthene	ND	ug/kg	5.7	1	08/17/11 13:38	08/17/11 20:46	83-32-9	
aphthylene	ND	ug/kg	5.7	1	08/17/11 13:38	08/17/11 20:46	208-96-8	
acene	ND	ug/kg	5.7	1	08/17/11 13:38	08/17/11 20:46	120-12-7	
o(a)anthracene	ND	ug/kg	5.7	1	08/17/11 13:38	08/17/11 20:46	56-55-3	
o(a)pyrene	ND	ug/kg	5.7	1	08/17/11 13:38	08/17/11 20:46	50-32-8	
o(b)fluoranthene	ND	ug/kg	5.7	1	08/17/11 13:38	08/17/11 20:46	205-99-2	
o(g,h,i)perylene	ND	ug/kg	5.7	1	08/17/11 13:38	08/17/11 20:46	191-24-2	
o(k)fluoranthene	ND	ug/kg	5.7	1	08/17/11 13:38	08/17/11 20:46	207-08-9	
ene	ND	ug/kg	5.7	1	08/17/11 13:38	08/17/11 20:46	218-01-9	
z(a,h)anthracene	ND	ug/kg	5.7	1	08/17/11 13:38	08/17/11 20:46	53-70-3	
anthene	ND	ug/kg	5.7	1	08/17/11 13:38	08/17/11 20:46	206-44-0	
ne	ND	ug/kg	5.7	1	08/17/11 13:38	08/17/11 20:46	86-73-7	
o(1,2,3-cd)pyrene	ND	ug/kg	5.7	1	08/17/11 13:38	08/17/11 20:46	193-39-5	
hynaphthalene	13.6	ug/kg	5.7	1	08/17/11 13:38	08/17/11 20:46	91-57-6	
halene	7.2	ug/kg	5.7	1	08/17/11 13:38	08/17/11 20:46	91-20-3	
anthrene	ND	ug/kg	5.7	1	08/17/11 13:38	08/17/11 20:46	85-01-8	
e	ND	ug/kg	5.7	1	08/17/11 13:38	08/17/11 20:46	129-00-0	
robiphenyl (S)	70	%	46-109	1	08/17/11 13:38	08/17/11 20:46	321-60-8	
enyl-d14 (S)	67	%	43-107	1	08/17/11 13:38	08/17/11 20:46	1718-51-0	
<b>MSV UST Low Level</b>								
Analytical Method: EPA 8260								
ne	ND	ug/kg	5.7	1		08/11/11 19:08	71-43-2	
enzene	ND	ug/kg	5.7	1		08/11/11 19:08	100-41-4	
e	ND	ug/kg	5.7	1		08/11/11 19:08	108-88-3	
i (Total)	ND	ug/kg	11.4	1		08/11/11 19:08	1330-20-7	
rofluoromethane (S)	107	%	71-125	1		08/11/11 19:08	1868-53-7	
e-d8 (S)	103	%	76-124	1		08/11/11 19:08	2037-26-5	
rofluorobenzene (S)	96	%	67-134	1		08/11/11 19:08	460-00-4	
<b>it Moisture</b>								
Analytical Method: ASTM D2974-87								
it Moisture	12.4	%	0.10	1		08/15/11 11:46		

## ANALYTICAL RESULTS

Project: Schafer Oil-Troy Marathon  
Pace Project No.: 5051484

Sample: MW-1	Lab ID: 5051484014	Collected: 08/05/11 11:15	Received: 08/10/11 11:44	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Q
8270 MSSV PAH by SIM		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510						
Acenaphthene	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 11:57	83-32-9	
Acenaphthylene	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 11:57	208-96-8	
Anthracene	ND	ug/L	0.10	1	08/11/11 01:30	08/15/11 11:57	120-12-7	
Benzo(a)anthracene	0.19	ug/L	0.10	1	08/11/11 01:30	08/15/11 11:57	56-55-3	
Benzo(a)pyrene	0.31	ug/L	0.10	1	08/11/11 01:30	08/15/11 11:57	50-32-8	
Benzo(b)fluoranthene	0.48	ug/L	0.10	1	08/11/11 01:30	08/15/11 11:57	205-99-2	
Benzo(g,h,i)perylene	0.35	ug/L	0.10	1	08/11/11 01:30	08/15/11 11:57	191-24-2	
Benzo(k)fluoranthene	0.30	ug/L	0.10	1	08/11/11 01:30	08/15/11 11:57	207-08-9	
Chrysene	ND	ug/L	0.52	1	08/11/11 01:30	08/15/11 11:57	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.10	1	08/11/11 01:30	08/15/11 11:57	53-70-3	
Fluoranthene	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 11:57	206-44-0	
Fluorene	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 11:57	86-73-7	
Indeno(1,2,3-cd)pyrene	0.28	ug/L	0.10	1	08/11/11 01:30	08/15/11 11:57	193-39-5	
2-Methylnaphthalene	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 11:57	91-57-6	
Naphthalene	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 11:57	91-20-3	
Phenanthrene	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 11:57	85-01-8	
Pyrene	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 11:57	129-00-0	
2-Fluorobiphenyl (S)	65 %		26-106	1	08/11/11 01:30	08/15/11 11:57	321-60-8	
Terphenyl-d14 (S)	62 %		16-111	1	08/11/11 01:30	08/15/11 11:57	1718-51-0	
8260 MSV UST		Analytical Method: EPA 8260						
Benzene	ND	ug/L	5.0	1		08/13/11 08:08	71-43-2	
Ethylbenzene	ND	ug/L	5.0	1		08/13/11 08:08	100-41-4	
Toluene	ND	ug/L	5.0	1		08/13/11 08:08	108-88-3	
Xylene (Total)	ND	ug/L	10.0	1		08/13/11 08:08	1330-20-7	
Dibromofluoromethane (S)	110 %		83-123	1		08/13/11 08:08	1868-53-7	
Toluene-d8 (S)	111 %		81-114	1		08/13/11 08:08	2037-26-5	
4-Bromofluorobenzene (S)	105 %		72-125	1		08/13/11 08:08	460-00-4	

## ANALYTICAL RESULTS

Project: Schafer Oil-Troy Marathon

Project No.: 5051484

Sample: MW-2 Lab ID: 5051484015 Collected: 08/05/11 12:00 Received: 08/10/11 11:44 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>MSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
phthene	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 12:15	83-32-9	
phthylene	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 12:15	208-96-8	
cene	ND	ug/L	0.10	1	08/11/11 01:30	08/15/11 12:15	120-12-7	
(a)anthracene	ND	ug/L	0.10	1	08/11/11 01:30	08/15/11 12:15	56-55-3	
(a)pyrene	ND	ug/L	0.10	1	08/11/11 01:30	08/15/11 12:15	50-32-8	
(b)fluoranthene	ND	ug/L	0.10	1	08/11/11 01:30	08/15/11 12:15	205-99-2	
(g,h,i)perylene	ND	ug/L	0.10	1	08/11/11 01:30	08/15/11 12:15	191-24-2	
(k)fluoranthene	ND	ug/L	0.10	1	08/11/11 01:30	08/15/11 12:15	207-08-9	
ane	ND	ug/L	0.52	1	08/11/11 01:30	08/15/11 12:15	218-01-9	
z(a,h)anthracene	ND	ug/L	0.10	1	08/11/11 01:30	08/15/11 12:15	53-70-3	
nthene	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 12:15	206-44-0	
ne	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 12:15	86-73-7	
γ(1,2,3-cd)pyrene	ND	ug/L	0.10	1	08/11/11 01:30	08/15/11 12:15	193-39-5	
lylnaphthalene	2.4	ug/L	1.0	1	08/11/11 01:30	08/15/11 12:15	91-57-6	
halene	4.3	ug/L	1.0	1	08/11/11 01:30	08/15/11 12:15	91-20-3	
anthrene	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 12:15	85-01-8	
e	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 12:15	129-00-0	
robiphenyl (S)	76 %		26-106	1	08/11/11 01:30	08/15/11 12:15	321-60-8	
enyl-d14 (S)	74 %		16-111	1	08/11/11 01:30	08/15/11 12:15	1718-51-0	

<b>MSV UST</b> Analytical Method: EPA 8260								
ne	19.8	ug/L	5.0	1		08/13/11 08:43	71-43-2	
enzene	5.2	ug/L	5.0	1		08/13/11 08:43	100-41-4	
ne	ND	ug/L	5.0	1		08/13/11 08:43	108-88-3	
e (Total)	ND	ug/L	10.0	1		08/13/11 08:43	1330-20-7	
monofluoromethane (S)	108 %		83-123	1		08/13/11 08:43	1868-53-7	
he-d8 (S)	110 %		81-114	1		08/13/11 08:43	2037-26-5	
monofluorobenzene (S)	105 %		72-125	1		08/13/11 08:43	460-00-4	



## ANALYTICAL RESULTS

Project: Schafer Oil-Troy Marathon

Pace Project No.: 5051484

Sample: MW-3	Lab ID: 5051484016	Collected: 08/05/11 12:15	Received: 08/10/11 11:44	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.
<b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510							
Acenaphthene	ND ug/L		1.0	1	08/11/11 01:30	08/15/11 12:33	83-32-9
Acenaphthylene	ND ug/L		1.0	1	08/11/11 01:30	08/15/11 12:33	208-96-8
Anthracene	ND ug/L		0.10	1	08/11/11 01:30	08/15/11 12:33	120-12-7
Benzo(a)anthracene	ND ug/L		0.10	1	08/11/11 01:30	08/15/11 12:33	56-55-3
Benzo(a)pyrene	ND ug/L		0.10	1	08/11/11 01:30	08/15/11 12:33	50-32-8
Benzo(b)fluoranthene	ND ug/L		0.10	1	08/11/11 01:30	08/15/11 12:33	205-99-2
Benzo(g,h,i)perylene	ND ug/L		0.10	1	08/11/11 01:30	08/15/11 12:33	191-24-2
Benzo(k)fluoranthene	ND ug/L		0.10	1	08/11/11 01:30	08/15/11 12:33	207-08-9
Chrysene	ND ug/L		0.52	1	08/11/11 01:30	08/15/11 12:33	218-01-9
Dibenz(a,h)anthracene	ND ug/L		0.10	1	08/11/11 01:30	08/15/11 12:33	53-70-3
Fluoranthene	ND ug/L		1.0	1	08/11/11 01:30	08/15/11 12:33	206-44-0
Fluorene	ND ug/L		1.0	1	08/11/11 01:30	08/15/11 12:33	86-73-7
Indeno(1,2,3-cd)pyrene	ND ug/L		0.10	1	08/11/11 01:30	08/15/11 12:33	193-39-5
2-Methylnaphthalene	ND ug/L		1.0	1	08/11/11 01:30	08/15/11 12:33	91-57-6
Naphthalene	ND ug/L		1.0	1	08/11/11 01:30	08/15/11 12:33	91-20-3
Phenanthrene	ND ug/L		1.0	1	08/11/11 01:30	08/15/11 12:33	85-01-8
Pyrene	ND ug/L		1.0	1	08/11/11 01:30	08/15/11 12:33	129-00-0
2-Fluorobiphenyl (S)	75 %		26-106	1	08/11/11 01:30	08/15/11 12:33	321-60-8
Terphenyl-d14 (S)	76 %		16-111	1	08/11/11 01:30	08/15/11 12:33	1718-51-0
<b>8260 MSV UST</b> Analytical Method: EPA 8260							
Benzene	ND ug/L		5.0	1		08/13/11 09:18	71-43-2
Ethylbenzene	ND ug/L		5.0	1		08/13/11 09:18	100-41-4
Toluene	ND ug/L		5.0	1		08/13/11 09:18	108-88-3
Xylene (Total)	ND ug/L		10.0	1		08/13/11 09:18	1330-20-7
Dibromofluoromethane (S)	108 %		83-123	1		08/13/11 09:18	1868-53-7
Toluene-d8 (S)	111 %		81-114	1		08/13/11 09:18	2037-26-5
4-Bromofluorobenzene (S)	104 %		72-125	1		08/13/11 09:18	460-00-4

## ANALYTICAL RESULTS

Project: Schafer Oil-Troy Marathon

Project No.: 5051484

Sample: MW-4 Lab ID: 5051484017 Collected: 08/05/11 12:45 Received: 08/10/11 11:44 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
aphthene	ND	ug/L	1.1	1	08/11/11 01:30	08/15/11 12:50	83-32-9	
aphthylene	ND	ug/L	1.1	1	08/11/11 01:30	08/15/11 12:50	208-96-8	
acene	ND	ug/L	0.11	1	08/11/11 01:30	08/15/11 12:50	120-12-7	
o(a)anthracene	ND	ug/L	0.11	1	08/11/11 01:30	08/15/11 12:50	56-55-3	
o(a)pyrene	ND	ug/L	0.11	1	08/11/11 01:30	08/15/11 12:50	50-32-8	
o(b)fluoranthene	ND	ug/L	0.11	1	08/11/11 01:30	08/15/11 12:50	205-99-2	
o(g,h,i)perylene	ND	ug/L	0.11	1	08/11/11 01:30	08/15/11 12:50	191-24-2	
o(k)fluoranthene	ND	ug/L	0.11	1	08/11/11 01:30	08/15/11 12:50	207-08-9	
sene	ND	ug/L	0.53	1	08/11/11 01:30	08/15/11 12:50	218-01-9	
az(a,h)anthracene	ND	ug/L	0.11	1	08/11/11 01:30	08/15/11 12:50	53-70-3	
anthene	ND	ug/L	1.1	1	08/11/11 01:30	08/15/11 12:50	206-44-0	
ene	ND	ug/L	1.1	1	08/11/11 01:30	08/15/11 12:50	86-73-7	
o(1,2,3-cd)pyrene	ND	ug/L	0.11	1	08/11/11 01:30	08/15/11 12:50	193-39-5	
thynaphthalene	ND	ug/L	1.1	1	08/11/11 01:30	08/15/11 12:50	91-57-6	
thalene	ND	ug/L	1.1	1	08/11/11 01:30	08/15/11 12:50	91-20-3	
anthrene	ND	ug/L	1.1	1	08/11/11 01:30	08/15/11 12:50	85-01-8	
re	ND	ug/L	1.1	1	08/11/11 01:30	08/15/11 12:50	129-00-0	
orobiphenyl (S)	82 %		26-106	1	08/11/11 01:30	08/15/11 12:50	321-60-8	
phenyl-d14 (S)	78 %		16-111	1	08/11/11 01:30	08/15/11 12:50	1718-51-0	

<b>MSV UST</b> Analytical Method: EPA 8260								
ene	ND	ug/L	5.0	1		08/13/11 10:27	71-43-2	
benzene	ND	ug/L	5.0	1		08/13/11 10:27	100-41-4	
ne	ND	ug/L	5.0	1		08/13/11 10:27	108-88-3	
ie (Total)	ND	ug/L	10.0	1		08/13/11 10:27	1330-20-7	
mofluoromethane (S)	106 %		83-123	1		08/13/11 10:27	1868-53-7	
ne-d8 (S)	111 %		81-114	1		08/13/11 10:27	2037-26-5	
mofluorobenzene (S)	105 %		72-125	1		08/13/11 10:27	460-00-4	

## ANALYTICAL RESULTS

Project: Schafer Oil-Troy Marathon

Pace Project No.: 5051484

Sample: MW-5	Lab ID: 5051484018	Collected: 08/05/11 13:10	Received: 08/10/11 11:44	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qu
<b>8270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
Acenaphthene	ND ug/L		1.1	1	08/11/11 01:30	08/15/11 13:08	83-32-9	
Acenaphthylene	ND ug/L		1.1	1	08/11/11 01:30	08/15/11 13:08	208-96-8	
Anthracene	ND ug/L		0.11	1	08/11/11 01:30	08/15/11 13:08	120-12-7	
Benzo(a)anthracene	ND ug/L		0.11	1	08/11/11 01:30	08/15/11 13:08	56-55-3	
Benzo(a)pyrene	ND ug/L		0.11	1	08/11/11 01:30	08/15/11 13:08	50-32-8	
Benzo(b)fluoranthene	ND ug/L		0.11	1	08/11/11 01:30	08/15/11 13:08	205-99-2	
Benzo(g,h,i)perylene	ND ug/L		0.11	1	08/11/11 01:30	08/15/11 13:08	191-24-2	
Benzo(k)fluoranthene	ND ug/L		0.11	1	08/11/11 01:30	08/15/11 13:08	207-08-9	
Chrysene	ND ug/L		0.53	1	08/11/11 01:30	08/15/11 13:08	218-01-9	
Dibenz(a,h)anthracene	ND ug/L		0.11	1	08/11/11 01:30	08/15/11 13:08	53-70-3	
Fluoranthene	ND ug/L		1.1	1	08/11/11 01:30	08/15/11 13:08	206-44-0	
Fluorene	ND ug/L		1.1	1	08/11/11 01:30	08/15/11 13:08	86-73-7	
Indeno(1,2,3-cd)pyrene	ND ug/L		0.11	1	08/11/11 01:30	08/15/11 13:08	193-39-5	
2-Methylnaphthalene	ND ug/L		1.1	1	08/11/11 01:30	08/15/11 13:08	91-57-6	
Naphthalene	ND ug/L		1.1	1	08/11/11 01:30	08/15/11 13:08	91-20-3	
Phenanthrene	ND ug/L		1.1	1	08/11/11 01:30	08/15/11 13:08	85-01-8	
Pyrene	ND ug/L		1.1	1	08/11/11 01:30	08/15/11 13:08	129-00-0	
2-Fluorobiphenyl (S)	81 %		26-106	1	08/11/11 01:30	08/15/11 13:08	321-60-8	
Terphenyl-d14 (S)	79 %		16-111	1	08/11/11 01:30	08/15/11 13:08	1718-51-0	
<b>8260 MSV UST</b> Analytical Method: EPA 8260								
Benzene	ND ug/L		5.0	1		08/13/11 11:02	71-43-2	
Ethylbenzene	ND ug/L		5.0	1		08/13/11 11:02	100-41-4	
Toluene	ND ug/L		5.0	1		08/13/11 11:02	108-88-3	
Xylene (Total)	ND ug/L		10.0	1		08/13/11 11:02	1330-20-7	
Dibromofluoromethane (S)	111 %		83-123	1		08/13/11 11:02	1868-53-7	
Toluene-d8 (S)	111 %		81-114	1		08/13/11 11:02	2037-26-5	
4-Bromofluorobenzene (S)	105 %		72-125	1		08/13/11 11:02	460-00-4	

## ANALYTICAL RESULTS

Project: Schafer Oil-Troy Marathon

Pace Project No.: 5051484

Sample: MW-6 Lab ID: 5051484019 Collected: 08/05/11 13:45 Received: 08/10/11 11:44 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>270 MSSV PAH by SIM</b> Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510								
acenaphthene	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 13:26	83-32-9	
acenaphthylene	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 13:26	208-96-8	
anthracene	ND	ug/L	0.10	1	08/11/11 01:30	08/15/11 13:26	120-12-7	
benzo(a)anthracene	ND	ug/L	0.10	1	08/11/11 01:30	08/15/11 13:26	56-55-3	
benzo(a)pyrene	ND	ug/L	0.10	1	08/11/11 01:30	08/15/11 13:26	50-32-8	
benzo(b)fluoranthene	ND	ug/L	0.10	1	08/11/11 01:30	08/15/11 13:26	205-99-2	
benzo(g,h,i)perylene	ND	ug/L	0.10	1	08/11/11 01:30	08/15/11 13:26	191-24-2	
benzo(k)fluoranthene	ND	ug/L	0.10	1	08/11/11 01:30	08/15/11 13:26	207-08-9	
biphenylene	ND	ug/L	0.52	1	08/11/11 01:30	08/15/11 13:26	218-01-9	
benz(a,h)anthracene	ND	ug/L	0.10	1	08/11/11 01:30	08/15/11 13:26	53-70-3	
fluoranthene	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 13:26	206-44-0	
fluorene	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 13:26	86-73-7	
benzo(1,2,3-cd)pyrene	ND	ug/L	0.10	1	08/11/11 01:30	08/15/11 13:26	193-39-5	
1-Methylnaphthalene	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 13:26	91-57-6	
naphthalene	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 13:26	91-20-3	
phenanthrene	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 13:26	85-01-8	
pyrene	ND	ug/L	1.0	1	08/11/11 01:30	08/15/11 13:26	129-00-0	
2-Fluorobiphenyl (S)	79 %		26-106	1	08/11/11 01:30	08/15/11 13:26	321-60-8	
perphenyl-d14 (S)	83 %		16-111	1	08/11/11 01:30	08/15/11 13:26	1718-51-0	

### 260 MSV UST

Analytical Method: EPA 8260

benzene	ND	ug/L	5.0	1		08/13/11 11:37	71-43-2	
ethylbenzene	ND	ug/L	5.0	1		08/13/11 11:37	100-41-4	
toluene	ND	ug/L	5.0	1		08/13/11 11:37	108-88-3	
xylene (Total)	ND	ug/L	10.0	1		08/13/11 11:37	1330-20-7	
1-bromofluoromethane (S)	108 %		83-123	1		08/13/11 11:37	1868-53-7	
toluene-d8 (S)	111 %		81-114	1		08/13/11 11:37	2037-26-5	
1-bromofluorobenzene (S)	103 %		72-125	1		08/13/11 11:37	460-00-4	

## ANALYTICAL RESULTS

Project: Schafer Oil-Troy Marathon

Pace Project No.: 5051484

Sample: Trip Blank		Lab ID: 5051484020	Collected: 08/05/11 08:00	Received: 08/10/11 11:44	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV UST</b>		Analytical Method: EPA 8260						
Benzene	ND ug/L		5.0	1		08/13/11 12:12	71-43-2	
Ethylbenzene	ND ug/L		5.0	1		08/13/11 12:12	100-41-4	
Toluene	ND ug/L		5.0	1		08/13/11 12:12	108-88-3	
Xylene (Total)	ND ug/L		10.0	1		08/13/11 12:12	1330-20-7	
Dibromofluoromethane (S)	111 %		83-123	1		08/13/11 12:12	1868-53-7	
Toluene-d8 (S)	111 %		81-114	1		08/13/11 12:12	2037-26-5	
4-Bromofluorobenzene (S)	105 %		72-125	1		08/13/11 12:12	460-00-4	

### QUALITY CONTROL DATA

Project: Schafer Oil-Troy Marathon  
Pace Project No.: 5051484

QC Batch: OEXT/26384 Analysis Method: EPA 8015 Mod Ext  
QC Batch Method: EPA 3546 Analysis Description: EPA 8015 TPH Ohio  
Associated Lab Samples: 5051484001, 5051484002, 5051484003, 5051484004, 5051484005, 5051484006, 5051484007, 5051484008, 5051484009, 5051484010, 5051484011, 5051484012, 5051484013

METHOD BLANK: 608646 Matrix: Solid  
Associated Lab Samples: 5051484001, 5051484002, 5051484003, 5051484004, 5051484005, 5051484006, 5051484007, 5051484008, 5051484009, 5051484010, 5051484011, 5051484012, 5051484013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Petroleum Hydrocarbons	mg/kg	ND	20.0	08/12/11 08:25	
TPH (C10-C20)	mg/kg	ND	10.0	08/12/11 08:25	
TPH (C20-C34)	mg/kg	ND	10.0	08/12/11 08:25	
n-Pentacosane (S)	%	70	30-126	08/12/11 08:25	

LABORATORY CONTROL SAMPLE: 608647

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Petroleum Hydrocarbons	mg/kg	83.3	51.4	62	47-107	
n-Pentacosane (S)	%			70	30-126	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 608648 608649

Parameter	Units	5051469001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Total Petroleum Hydrocarbons	mg/kg	<23.1	96.3	96.3	61.3	65.2	61	65	23-115	6	20
n-Pentacosane (S)	%						75	77	30-126	20	

## QUALITY CONTROL DATA

Project: Schafer Oil-Troy Marathon  
Pace Project No.: 5051484

QC Batch: OEXT/26385 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270 MSSV PAH by SIM  
Associated Lab Samples: 5051484001, 5051484002, 5051484003, 5051484004, 5051484005, 5051484006, 5051484007, 5051484008, 5051484009, 5051484010, 5051484012

METHOD BLANK: 608650 Matrix: Solid  
Associated Lab Samples: 5051484001, 5051484002, 5051484003, 5051484004, 5051484005, 5051484006, 5051484007, 5051484008, 5051484009, 5051484010, 5051484012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2-Methylnaphthalene	ug/kg	ND	5.0	08/12/11 23:20	
Acenaphthene	ug/kg	ND	5.0	08/12/11 23:20	
Acenaphthylene	ug/kg	ND	5.0	08/12/11 23:20	
Anthracene	ug/kg	ND	5.0	08/12/11 23:20	
Benzo(a)anthracene	ug/kg	ND	5.0	08/12/11 23:20	
Benzo(a)pyrene	ug/kg	ND	5.0	08/12/11 23:20	
Benzo(b)fluoranthene	ug/kg	ND	5.0	08/12/11 23:20	
Benzo(g,h,i)perylene	ug/kg	ND	5.0	08/12/11 23:20	
Benzo(k)fluoranthene	ug/kg	ND	5.0	08/12/11 23:20	
Chrysene	ug/kg	ND	5.0	08/12/11 23:20	
Dibenz(a,h)anthracene	ug/kg	ND	5.0	08/12/11 23:20	
Fluoranthene	ug/kg	ND	5.0	08/12/11 23:20	
Fluorene	ug/kg	ND	5.0	08/12/11 23:20	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	5.0	08/12/11 23:20	
Naphthalene	ug/kg	ND	5.0	08/12/11 23:20	
Phenanthrene	ug/kg	ND	5.0	08/12/11 23:20	
Pyrene	ug/kg	ND	5.0	08/12/11 23:20	
2-Fluorobiphenyl (S)	%	54	46-109	08/12/11 23:20	
Terphenyl-d14 (S)	%	59	43-107	08/12/11 23:20	

LABORATORY CONTROL SAMPLE: 608651

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Methylnaphthalene	ug/kg	333	74.4	22	49-116	L0
Acenaphthene	ug/kg	333	80.3	24	52-114	L0
Acenaphthylene	ug/kg	333	85.0	25	52-119	L0
Anthracene	ug/kg	333	90.2	27	55-124	L0
Benzo(a)anthracene	ug/kg	333	97.9	29	52-122	L0
Benzo(a)pyrene	ug/kg	333	101	30	56-131	L0
Benzo(b)fluoranthene	ug/kg	333	98.4	30	54-125	L0
Benzo(g,h,i)perylene	ug/kg	333	92.7	28	55-122	L0
Benzo(k)fluoranthene	ug/kg	333	92.5	28	55-128	L0
Chrysene	ug/kg	333	93.5	28	56-118	L0
Dibenz(a,h)anthracene	ug/kg	333	98.1	29	56-125	L0
Fluoranthene	ug/kg	333	95.5	29	55-125	L0
Fluorene	ug/kg	333	85.8	26	54-120	L0
Indeno(1,2,3-cd)pyrene	ug/kg	333	98.4	30	56-124	L0
Naphthalene	ug/kg	333	70.6	21	52-112	1d,L0
Phenanthrene	ug/kg	333	86.1	26	53-116	L0
Pyrene	ug/kg	333	96.2	29	55-120	L0

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### QUALITY CONTROL DATA

Subject: Schafer Oil-Troy Marathon  
Project No.: 5051484

LABORATORY CONTROL SAMPLE: 608651

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
fluorobiphenyl (S)	%			25	46-109	S0
phenyl-d14 (S)	%			27	43-107	S0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 608652 608653

Parameter	Units	5051447001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
1-methylnaphthalene	ug/kg	ND	397	397	244	235	62	59	43-106	4	20
1-naphthene	ug/kg	ND	397	397	265	258	67	65	46-101	3	20
1-naphthylene	ug/kg	ND	397	397	282	275	71	69	47-105	3	20
1-thracene	ug/kg	ND	397	397	284	280	72	71	39-112	1	20
1-nzo(a)anthracene	ug/kg	ND	397	397	298	279	74	70	36-105	6	20
1-nzo(a)pyrene	ug/kg	ND	397	397	305	289	77	73	34-113	5	20
1-nzo(b)fluoranthene	ug/kg	ND	397	397	309	278	78	70	33-111	11	20
1-nzo(g,h,i)perylene	ug/kg	ND	397	397	280	264	70	67	26-109	6	20
1-nzo(k)fluoranthene	ug/kg	ND	397	397	265	269	67	68	31-116	1	20
1-rysene	ug/kg	ND	397	397	290	277	73	70	34-109	5	20
1-benz(a,h)anthracene	ug/kg	ND	397	397	300	281	76	71	32-111	7	20
1-boranthene	ug/kg	ND	397	397	289	280	72	70	33-117	3	20
1-borene	ug/kg	ND	397	397	288	283	72	71	44-107	2	20
1-beno(1,2,3-cd)pyrene	ug/kg	ND	397	397	289	275	73	69	27-113	5	20
1-phthalene	ug/kg	ND	397	397	233	223	59	56	45-106	4	20
1-benanthrene	ug/kg	ND	397	397	273	263	68	66	42-103	4	20
1-bene	ug/kg	ND	397	397	291	281	72	70	36-111	4	20
1-fluorobiphenyl (S)	%						66	65	46-109		20
1-phenyl-d14 (S)	%						68	64	43-107		20



## QUALITY CONTROL DATA

Project: Schafer Oil-Troy Marathon  
Pace Project No.: 5051484

QC Batch: OEXT/26469 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3546 Analysis Description: 8270 MSSV PAH by SIM  
Associated Lab Samples: 5051484011, 5051484013

METHOD BLANK: 610604 Matrix: Solid

Associated Lab Samples: 5051484011, 5051484013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2-Methylnaphthalene	ug/kg	ND	5.0	08/17/11 19:53	
Acenaphthene	ug/kg	ND	5.0	08/17/11 19:53	
Acenaphthylene	ug/kg	ND	5.0	08/17/11 19:53	
Anthracene	ug/kg	ND	5.0	08/17/11 19:53	
Benzo(a)anthracene	ug/kg	ND	5.0	08/17/11 19:53	
Benzo(a)pyrene	ug/kg	ND	5.0	08/17/11 19:53	
Benzo(b)fluoranthene	ug/kg	ND	5.0	08/17/11 19:53	
Benzo(g,h,i)perylene	ug/kg	ND	5.0	08/17/11 19:53	
Benzo(k)fluoranthene	ug/kg	ND	5.0	08/17/11 19:53	
Chrysene	ug/kg	ND	5.0	08/17/11 19:53	
Dibenz(a,h)anthracene	ug/kg	ND	5.0	08/17/11 19:53	
Fluoranthene	ug/kg	ND	5.0	08/17/11 19:53	
Fluorene	ug/kg	ND	5.0	08/17/11 19:53	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	5.0	08/17/11 19:53	
Naphthalene	ug/kg	ND	5.0	08/17/11 19:53	
Phenanthrene	ug/kg	ND	5.0	08/17/11 19:53	
Pyrene	ug/kg	ND	5.0	08/17/11 19:53	
2-Fluorobiphenyl (S)	%	65	46-109	08/17/11 19:53	
Terphenyl-d14 (S)	%	71	43-107	08/17/11 19:53	

LABORATORY CONTROL SAMPLE: 610605

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Methylnaphthalene	ug/kg	333	183	55	49-116	
Acenaphthene	ug/kg	333	198	59	52-114	
Acenaphthylene	ug/kg	333	208	62	52-119	
Anthracene	ug/kg	333	232	70	55-124	
Benzo(a)anthracene	ug/kg	333	233	70	52-122	
Benzo(a)pyrene	ug/kg	333	240	72	56-131	
Benzo(b)fluoranthene	ug/kg	333	238	71	54-125	
Benzo(g,h,i)perylene	ug/kg	333	218	65	55-122	
Benzo(k)fluoranthene	ug/kg	333	224	67	55-128	
Chrysene	ug/kg	333	226	68	56-118	
Dibenz(a,h)anthracene	ug/kg	333	232	70	56-125	
Fluoranthene	ug/kg	333	236	71	55-125	
Fluorene	ug/kg	333	223	67	54-120	
Indeno(1,2,3-cd)pyrene	ug/kg	333	228	68	56-124	
Naphthalene	ug/kg	333	176	53	52-112	
Phenanthrene	ug/kg	333	212	63	53-116	
Pyrene	ug/kg	333	230	69	55-120	
2-Fluorobiphenyl (S)	%			62	46-109	

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### QUALITY CONTROL DATA

Project: Schafer Oil-Troy Marathon  
Pace Project No.: 5051484

LABORATORY CONTROL SAMPLE: 610605

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Terphenyl-d14 (S)	%			69	43-107	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 610606

610607

Parameter	Units	5051646006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
2-Methylnaphthalene	ug/kg	9.7	361	361	281	356	75	96	43-106	23	20 R1
Acenaphthene	ug/kg	17.0	361	361	325	547	85	146	46-101	51	20 M0,R1
Acenaphthylene	ug/kg	5.8	361	361	295	326	80	89	47-105	10	20
Anthracene	ug/kg	45.4	361	361	468	945	117	249	39-112	68	20 M0,R1
Benzo(a)anthracene	ug/kg	196	361	361	1020	1840	228	455	36-105	57	20 E,M0,R1
Benzo(a)pyrene	ug/kg	194	361	361	965	1700	213	416	34-113	55	20 M0,R1
Benzo(b)fluoranthene	ug/kg	227	361	361	1100	1880	243	458	33-111	52	20 E,M0,R1
Benzo(g,h,i)perylene	ug/kg	128	361	361	699	1200	158	296	26-109	53	20 M0,R1
Benzo(k)fluoranthene	ug/kg	158	361	361	786	1400	174	344	31-116	56	20 M0,R1
Chrysene	ug/kg	221	361	361	1080	1950	238	477	34-109	57	20 E,M0,R1
Dibenz(a,h)anthracene	ug/kg	63.8	361	361	530	762	129	193	32-111	36	20 M0,R1
Fluoranthene	ug/kg	410	361	361	1740	3470	367	845	33-117	66	20 E,M0,R1
Fluorene	ug/kg	14.3	361	361	335	566	89	153	44-107	51	20 M0,R1
Indeno(1,2,3-cd)pyrene	ug/kg	127	361	361	707	1200	160	296	27-113	51	20 M0,R1
Naphthalene	ug/kg	9.3	361	361	271	321	72	86	45-106	17	20
Phenanthrene	ug/kg	209	361	361	1080	2500	241	632	42-103	79	20 E,M0,R1
Pyrene	ug/kg	335	361	361	1480	2910	317	712	36-111	65	20 E,M0,R1
2-Fluorobiphenyl (S)	%						71	73	46-109	20	
Terphenyl-d14 (S)	%						80	80	43-107	20	

### QUALITY CONTROL DATA

Project: Schafer Oil-Troy Marathon  
Pace Project No.: 5051484

QC Batch: OEXT/26358 Analysis Method: EPA 8270 by SIM  
QC Batch Method: EPA 3510 Analysis Description: 8270 Water PAH by SIM MSSV  
Associated Lab Samples: 5051484014, 5051484015, 5051484016, 5051484017, 5051484018, 5051484019

METHOD BLANK: 608013 Matrix: Water  
Associated Lab Samples: 5051484014, 5051484015, 5051484016, 5051484017, 5051484018, 5051484019

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2-Methylnaphthalene	ug/L	ND	1.0	08/15/11 11:04	
Acenaphthene	ug/L	ND	1.0	08/15/11 11:04	
Acenaphthylene	ug/L	ND	1.0	08/15/11 11:04	
Anthracene	ug/L	ND	0.10	08/15/11 11:04	
Benzo(a)anthracene	ug/L	ND	0.10	08/15/11 11:04	
Benzo(a)pyrene	ug/L	ND	0.10	08/15/11 11:04	
Benzo(b)fluoranthene	ug/L	ND	0.10	08/15/11 11:04	
Benzo(g,h,i)perylene	ug/L	ND	0.10	08/15/11 11:04	
Benzo(k)fluoranthene	ug/L	ND	0.10	08/15/11 11:04	
Chrysene	ug/L	ND	0.50	08/15/11 11:04	
Dibenz(a,h)anthracene	ug/L	ND	0.10	08/15/11 11:04	
Fluoranthene	ug/L	ND	1.0	08/15/11 11:04	
Fluorene	ug/L	ND	1.0	08/15/11 11:04	
Indeno(1,2,3-cd)pyrene	ug/L	ND	0.10	08/15/11 11:04	
Naphthalene	ug/L	ND	1.0	08/15/11 11:04	
Phenanthrene	ug/L	ND	1.0	08/15/11 11:04	
Pyrene	ug/L	ND	1.0	08/15/11 11:04	
2-Fluorobiphenyl (S)	%	77	26-106	08/15/11 11:04	
Terphenyl-d14 (S)	%	98	16-111	08/15/11 11:04	

LABORATORY CONTROL SAMPLE: 608014

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Methylnaphthalene	ug/L	10	6.3	63	24-104	
Acenaphthene	ug/L	10	7.4	74	31-108	
Acenaphthylene	ug/L	10	8.1	81	33-111	
Anthracene	ug/L	10	9.3	93	45-120	
Benzo(a)anthracene	ug/L	10	10	100	51-119	
Benzo(a)pyrene	ug/L	10	10.2	102	52-124	
Benzo(b)fluoranthene	ug/L	10	10.1	101	51-122	
Benzo(g,h,i)perylene	ug/L	10	9.4	94	48-112	
Benzo(k)fluoranthene	ug/L	10	9.6	96	53-123	
Chrysene	ug/L	10	9.6	96	54-118	
Dibenz(a,h)anthracene	ug/L	10	9.8	98	49-114	
Fluoranthene	ug/L	10	9.7	97	52-122	
Fluorene	ug/L	10	8.5	85	38-113	
Indeno(1,2,3-cd)pyrene	ug/L	10	9.7	97	49-114	
Naphthalene	ug/L	10	6.4	64	27-103	
Phenanthrene	ug/L	10	8.6	86	43-112	
Pyrene	ug/L	10	9.7	97	51-120	
2-Fluorobiphenyl (S)	%			77	26-106	

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### QUALITY CONTROL DATA

ct: Schafer Oil-Troy Marathon  
Project No.: 5051484

LABORATORY CONTROL SAMPLE: 608014

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
phenyl-d14 (S)	%			94	16-111	

## QUALITY CONTROL DATA

Project: Schafer Oil-Troy Marathon  
Pace Project No.: 5051484

QC Batch: MSV/34894 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST Low Level  
Associated Lab Samples: 5051484002, 5051484003, 5051484004, 5051484005, 5051484013

METHOD BLANK: 609583 Matrix: Solid  
Associated Lab Samples: 5051484002, 5051484003, 5051484004, 5051484005, 5051484013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	5.0	08/11/11 09:09	
Ethylbenzene	ug/kg	ND	5.0	08/11/11 09:09	
Toluene	ug/kg	ND	5.0	08/11/11 09:09	
Xylene (Total)	ug/kg	ND	10.0	08/11/11 09:09	
4-Bromofluorobenzene (S)	%	95	67-134	08/11/11 09:09	
Dibromofluoromethane (S)	%	107	71-125	08/11/11 09:09	
Toluene-d8 (S)	%	103	76-124	08/11/11 09:09	

LABORATORY CONTROL SAMPLE: 609584

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	50	46.8	94	77-123	
Ethylbenzene	ug/kg	50	48.0	96	77-120	
Toluene	ug/kg	50	50.1	100	74-121	
Xylene (Total)	ug/kg	150	138	92	75-122	
4-Bromofluorobenzene (S)	%			100	67-134	
Dibromofluoromethane (S)	%			105	71-125	
Toluene-d8 (S)	%			100	76-124	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 609585 609586

Parameter	Units	5051484003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Benzene	ug/kg	ND	52.4	52.4	38.0	40.9	73	78	23-138	7	20
Ethylbenzene	ug/kg	ND	52.4	52.4	29.2	31.8	56	61	10-135	9	20
Toluene	ug/kg	ND	52.4	52.4	35.9	38.6	69	74	10-131	7	20
Xylene (Total)	ug/kg	ND	157	157	79.3	86.6	50	55	10-131	9	20
4-Bromofluorobenzene (S)	%						98	101	67-134		20
Dibromofluoromethane (S)	%						107	107	71-125		20
Toluene-d8 (S)	%						101	101	76-124		20

### QUALITY CONTROL DATA

Project: Schafer Oil-Troy Marathon

Project No.: 5051484

Batch: MSV/34895

Analysis Method: EPA 8260

Batch Method: EPA 8260

Analysis Description: 8260 MSV UST Low Level

Associated Lab Samples: 5051484001, 5051484011

METHOD BLANK: 609619

Matrix: Solid

Associated Lab Samples: 5051484001, 5051484011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
nzene	ug/kg	ND	5.0	08/11/11 21:38	
ylbenzene	ug/kg	ND	5.0	08/11/11 21:38	
uene	ug/kg	ND	5.0	08/11/11 21:38	
ene (Total)	ug/kg	ND	10.0	08/11/11 21:38	
romofluorobenzene (S)	%	96	67-134	08/11/11 21:38	
romofluoromethane (S)	%	107	71-125	08/11/11 21:38	
uene-d8 (S)	%	103	76-124	08/11/11 21:38	

LABORATORY CONTROL SAMPLE: 609620

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
nzene	ug/kg	50	45.9	92	77-123	
ylbenzene	ug/kg	50	46.1	92	77-120	
uene	ug/kg	50	48.1	96	74-121	
ene (Total)	ug/kg	150	133	89	75-122	
romofluorobenzene (S)	%			102	67-134	
romofluoromethane (S)	%			107	71-125	
uene-d8 (S)	%			100	76-124	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 609621

609622

Parameter	Units	5051484001	MS	MSD	MS	MSD	MS	MSD	% Rec	Max		Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	
nzene	ug/kg	ND	52.6	52.6	41.8	39.9	79	76	23-138	5	20	
ylbenzene	ug/kg	ND	52.6	52.6	33.1	29.9	63	57	10-135	10	20	
uene	ug/kg	ND	52.6	52.6	40.3	37.6	77	72	10-131	7	20	
ene (Total)	ug/kg	ND	158	158	89.0	81.8	56	52	10-131	8	20	
romofluorobenzene (S)	%						100	99	67-134		20	
romofluoromethane (S)	%						107	108	71-125		20	
uene-d8 (S)	%						100	101	76-124		20	

### QUALITY CONTROL DATA

Project: Schafer Oil-Troy Marathon  
Pace Project No.: 5051484

QC Batch: MSV/34897 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST Low Level  
Associated Lab Samples: 5051484006, 5051484007, 5051484008, 5051484009, 5051484010, 5051484012

METHOD BLANK: 609646 Matrix: Solid  
Associated Lab Samples: 5051484006, 5051484007, 5051484008, 5051484009, 5051484010, 5051484012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/kg	ND	5.0	08/11/11 09:28	
Ethylbenzene	ug/kg	ND	5.0	08/11/11 09:28	
Toluene	ug/kg	ND	5.0	08/11/11 09:28	
Xylene (Total)	ug/kg	ND	10.0	08/11/11 09:28	
4-Bromofluorobenzene (S)	%	102	67-134	08/11/11 09:28	
Dibromofluoromethane (S)	%	106	71-125	08/11/11 09:28	
Toluene-d8 (S)	%	99	76-124	08/11/11 09:28	

LABORATORY CONTROL SAMPLE: 609647

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/kg	50	47.1	94	77-123	
Ethylbenzene	ug/kg	50	47.9	96	77-120	
Toluene	ug/kg	50	48.0	96	74-121	
Xylene (Total)	ug/kg	150	143	95	75-122	
4-Bromofluorobenzene (S)	%			103	67-134	
Dibromofluoromethane (S)	%			105	71-125	
Toluene-d8 (S)	%			102	76-124	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 609648 609649

Parameter	Units	5051484009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Benzene	ug/kg	ND	57.8	57.8	47.4	46.4	82	80	23-138	2	20
Ethylbenzene	ug/kg	ND	57.8	57.8	39.5	37.4	68	65	10-135	6	20
Toluene	ug/kg	ND	57.8	57.8	42.8	41.3	74	72	10-131	3	20
Xylene (Total)	ug/kg	ND	173	173	115	109	67	63	10-131	5	20
4-Bromofluorobenzene (S)	%						104	106	67-134		20
Dibromofluoromethane (S)	%						109	107	71-125		20
Toluene-d8 (S)	%						101	102	76-124		20

### QUALITY CONTROL DATA

Project: Schafer Oil-Troy Marathon

Pace Project No.: 5051484

QC Batch: MSV/34914

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV UST-WATER

Associated Lab Samples: 5051484014, 5051484015, 5051484016, 5051484017, 5051484018, 5051484019, 5051484020

METHOD BLANK: 609843

Matrix: Water

Associated Lab Samples: 5051484014, 5051484015, 5051484016, 5051484017, 5051484018, 5051484019, 5051484020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	5.0	08/13/11 04:40	
Ethylbenzene	ug/L	ND	5.0	08/13/11 04:40	
Toluene	ug/L	ND	5.0	08/13/11 04:40	
Xylene (Total)	ug/L	ND	10.0	08/13/11 04:40	
4-Bromofluorobenzene (S)	%	103	72-125	08/13/11 04:40	
Dibromofluoromethane (S)	%	108	83-123	08/13/11 04:40	
Toluene-d8 (S)	%	107	81-114	08/13/11 04:40	

LABORATORY CONTROL SAMPLE: 609844

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	53.4	107	76-123	
Ethylbenzene	ug/L	50	57.5	115	75-120	
Toluene	ug/L	50	54.8	110	72-124	
Xylene (Total)	ug/L	150	171	114	72-126	
4-Bromofluorobenzene (S)	%			101	72-125	
Dibromofluoromethane (S)	%			98	83-123	
Toluene-d8 (S)	%			106	81-114	

MATRIX SPIKE SAMPLE: 609845

Parameter	Units	5051484016 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	ND	50	52.4	105	52-134	
Ethylbenzene	ug/L	ND	50	57.0	114	29-132	
Toluene	ug/L	ND	50	54.6	109	42-130	
Xylene (Total)	ug/L	ND	150	168	112	29-131	
4-Bromofluorobenzene (S)	%				102	72-125	
Dibromofluoromethane (S)	%				99	83-123	
Toluene-d8 (S)	%				109	81-114	



## QUALITY CONTROL DATA

Project: Schafer Oil-Troy Marathon  
Pace Project No.: 5051484

QC Batch: PMST/6146 Analysis Method: ASTM D2974-87  
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture  
Associated Lab Samples: 5051484001, 5051484002, 5051484003, 5051484004, 5051484005, 5051484006, 5051484007, 5051484008,  
5051484009, 5051484010, 5051484011, 5051484012, 5051484013

SAMPLE DUPLICATE: 609654

Parameter	Units	5051484001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	5.0	5.6	12	5	R2

SAMPLE DUPLICATE: 609655

Parameter	Units	5051494001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	15.1	13.2	14	5	R2

Date: 08/23/2011 12:53 PM

## REPORT OF LABORATORY ANALYSIS

Page 36 of 37

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## QUALIFIERS

Project: Schafer Oil-Troy Marathon  
Pace Project No.: 5051484

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

### ANALYTE QUALIFIERS

- |    |   |
|----|---|
| 1d | An evaluation of the associated Matrix Spike (MS 608652) recoveries against the LCS control limits demonstrates extraction efficiency per NELAC D1.1.2.1.c. 8-16-11 RRB |
| 2d | Compound was ND @ an estimated RL of 149ug/kg, based upon the MDL. slb081511  |
| D3 | Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.  |
| E  | Analyte concentration exceeded the calibration range. The reported result is estimated.   |
| L0 | Analyte recovery in the laboratory control sample (LCS) was outside QC limits.  |
| M0 | Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.   |
| R1 | RPD value was outside control limits.   |
| R2 | RPD value was outside control limits due to matrix interference   |
| S0 | Surrogate recovery outside laboratory control limits.   |

**APPENDIX E**  
**CHAIN-OF-CUSTODY**



This Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 2 of 2

1469713

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:		Page: 1 of 1	
Requestor: Stone Env.		Report To: Jon Zander		Attention: Jon Zander		1469713	
Address: 748-A Green Creek Westerville, OH 43081		Copy To:		Company Name: Stone Env.		REGULATORY AGENCY:	
Email To:		Purchase Order No.:		Address:		<input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input checked="" type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER _____	
Phone: 614.851.8111 x:		Project Name: Schaefer Oil-Trey Manufacturing		Peak Quote Reference:		<input type="checkbox"/> Local <input type="checkbox"/> State	
Requested Due Date/FAST: Normal		Project Number: C323-15-11		Peak Project Manager: Donna Spitzer		<input type="checkbox"/> State <input type="checkbox"/> Other	

ITEM #	Section D Required Client Information	Matrix Codes MATRIX CODE	Drinking Water DW Water WT Waste Water WW Product P Spill/Spill SL Oil OL Wipe YP Air AR Tissue TS Other OT	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Residual Chlorine (NIN)	Pace Project No./ Lab I.D.
				COMPOSITE START		COMPOSITE END/GRAB				H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	Methanol	Other		
				DATE	TIME	DATE	TIME											
1	MW-1				8/15/11	11:15		5										014
2	MW-2					12:00												015
3	MW-3					12:15												016
4	MW-4					12:45												017
5	MW-5					13:10												018
6	MW-6					13:45												019
7	Tip Blank							3										020
8	BB 2-4					2/2/11	14:00	1										013
9																		
10																		
11																		
12																		

6051484

BLEX  
 PAH  
 TPH DRG

Reviser  
 8/10/11  
 6:50 AM  
 Stone

Env. 018  
 019  
 020  
 013

Additional Comments: Sup Blank added for Store Bui. 8/9/11 11:30  
 to cor. per Jon  
 8/10/11 (BB)



# Sample Condition Upon Receipt

Pace Analytical

Client Name: Store Enviro

Project # 505484

Carrier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 8766 928P1710

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals Intact: ☒ yes ☐ no

Date/Time 5035A kits placed in freezer

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Thermometer Used 1234567890

Type of Ice: ☒ Blue ☐ None

☒ Samples on ice, cooling process has begun

Cooler Temperature 4.8°C

Ice Visible in Sample Containers: ☐ yes ☒ no

Corrected, if applicable) 2.9°C

Temp should be above freezing to 6°C

Comments:

Date and initials of person examining contents: 8-10-11-mw

Chain of Custody Present: ☒ Yes ☐ No ☐ N/A 1.

Chain of Custody Filled Out: ☒ Yes ☐ No ☐ N/A 2.

Chain of Custody Relinquished: ☒ Yes ☐ No ☐ N/A 3.

Sampler Name & Signature on COC: ☒ Yes ☐ No ☐ N/A 4.

Port Hold Time Analysis (<72hr): ☐ Yes ☒ No ☐ N/A 5.

24hr Turn Around Time Requested: ☐ Yes ☒ No ☐ N/A 6.

Containers Intact: ☒ Yes ☐ No ☐ N/A 7.

Sample Labels match COC: ☐ Yes ☒ No ☐ N/A 8.

Rec'd 1 402 soil 08 (2-4 on 2-1) that is not on COC.

-Includes date/time/ID/Analysis

Containers needing acid/base pres. have been checked?

☐ Yes ☐ No ☒ N/A 9. (Circle) HNO3 H2SO4 NaOH HCl

Options: VOA, colts-m, TOC, OEG

Containers needing preservation are found to be in compliance with EPA recommendation: ☐ Yes ☐ No ☒ N/A

Adsorbent in VOA Vials (>6mm): ☐ Yes ☒ No ☐ N/A 10.

Blank Present: ☒ Yes ☐ No ☐ N/A 11.

Blank Custody Seals Present: ☒ Yes ☐ No ☐ N/A

Samples Arrived within Hold Time: ☒ Yes ☐ No ☐ N/A 12.

Sufficient Volume: ☒ Yes ☐ No ☐ N/A 13.

Rec'd Containers Used: ☒ Yes ☐ No ☐ N/A 14.

Event Notification/Resolution:

Field Data Required? Y / N

Person Contacted: Jim - Stone

Date/Time: 8/10/11

Comments/Resolution:

Rec'd 3 TB blanks that are NOT on COC

new trip 88

Project Manager Review:

[Signature]

Date: 8/10/11

COC ID#

JOHN L. L. L. L.

1 of 2

1469712

Project # 5051484

Sample Line

Item	DG9H	AG1U	WGFU	R 4 / 6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H
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Comments

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13

08

- not on coc -

### Container Codes

DG9H	40mL HCL amber vial	AF	Air Filter	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1liter unpreserved amber glass	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGfU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved amber vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I	Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	BP3A	250mL NaOH, Asc Acid plastic	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved clear vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFx	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag



COC PAGE 2 of 2  
COC ID# TC09713

Project # 6051484

www.pacelabs.com

Sample Line	Item	DG9H	AG1U	WGFU	R 4/6	BP2N	BP2U	BP2S	BP3N	BP3U	BP3S	AG3S	AG1H	Comments
1		3	2											mw1
2														-2
3														-3
4														-4
5														-5
6														-6
7														TB - NOT on COC
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Container Codes

DG9H	40mL HCL amber vial	AF	Air Filter	BP1N	1 liter HNO3 plastic	DG9P	40mL TSP amber vial
AG1U	1 liter unpreserved amber glass	AG1H	1 liter HCL amber glass	BP1S	1 liter H2SO4 plastic	DG9S	40mL H2SO4 amber vial
WGFU	4oz clear soil jar	AG1S	1 liter H2SO4 amber glass	BP1U	1 liter unpreserved plastic	DG9T	40mL Na Thio amber vial
R	terra core kit	AG1T	1 liter Na Thiosulfate amber gl	BP1Z	1 liter NaOH, Zn, Ac	DG9U	40mL unpreserved amber vial
BP2N	500mL HNO3 plastic	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	I	Wipe/Swab
BP2U	500mL unpreserved plastic	AG2S	500mL H2SO4 amber glass	BP2O	500mL NaOH plastic	JGFU	4oz unpreserved amber wide
BP2S	500mL H2SO4 plastic	AG2U	500mL unpreserved amber gla	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
BP3N	250mL HNO3 plastic	AG3U	250mL unpreserved amber gla	BP3A	250mL NaOH, Asc Acid plastic	VG9H	40mL HCL clear vial
BP3U	250mL unpreserved plastic	BG1H	1 liter HCL clear glass	BP3C	250mL NaOH plastic	VG9T	40mL Na Thio. clear vial
BP3S	250mL H2SO4 plastic	BG1S	1 liter H2SO4 clear glass	BP3Z	250mL NaOH, Zn Ac plastic	VG9U	40mL unpreserved clear vial
AG3S	250mL H2SO4 glass amber	BG1T	1 liter Na Thiosulfate clear gla	C	Air Cassettes	VSG	Headspace septa vial & HCL
AG1S	1 liter H2SO4 amber glass	BG1U	1 liter unpreserved glass	DG9B	40mL Na Bisulfate amber vial	WGFU	4oz wide jar w/hexane wipe
BP1U	1 liter unpreserved plastic	BP1A	1 liter NaOH, Asc Acid plastic	DG9M	40mL MeOH clear vial	ZPLC	Ziploc Bag



**APPENDIX F**

**DRINKING WATER EVALUATION SUPPORTING DOCUMENTATION**

**This Document does not Apply**

Maps of Area



~ NOTE ~

ALL ELEVATIONS U.S.C.B.  
ADD BODEN TO ALL ELEVENTH  
NO INFORMATION FOUND OF DAW TRAIN, GERMANY  
THEN GET A TRAIN FROM NATE TRAIL, TEXAS  
FROM RAIN TO BUILDING

ELM ST. U.S. ROUTE

OUTER INSET

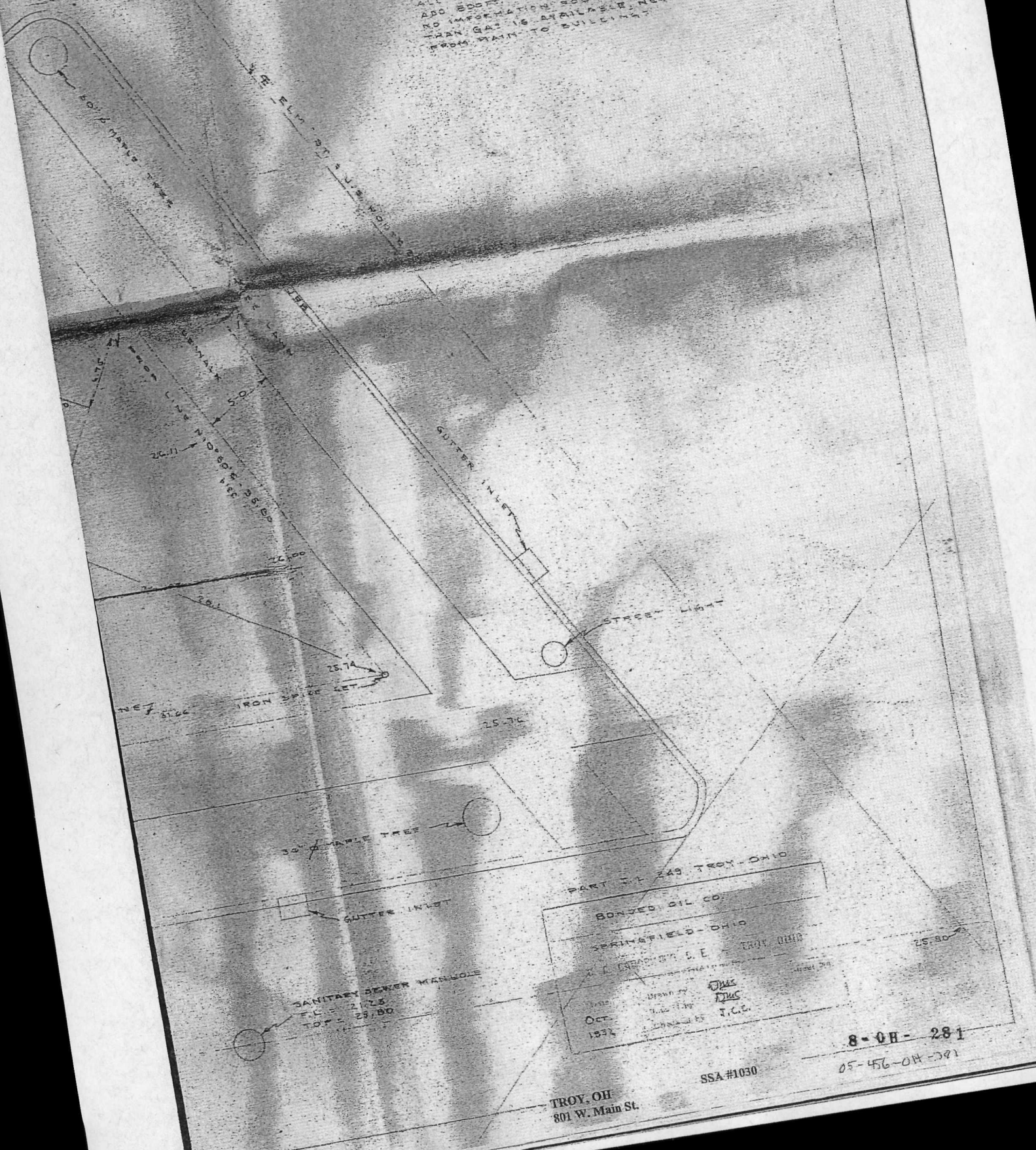
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IRON SPIKE IN

SCALE 1" = 5'

NOTE

ALL ELEVATIONS U.S. 2.2  
 ADD EDDY TO ALL ELEVATIONS  
 NO INFORMATION FOUND ON GAS MAIN, OTHER  
 THAN GAS IS AVAILABLE, NEW NEW SERVICE  
 FROM MAIN TO BUILDING



PART OF 249 TROY, OHIO

BONDED OIL CO.

SPRINGFIELD - OHIO

A. E. CARPENTERS E. E. - TROY, OHIO

Drawn by *[Signature]*

Checked by *[Signature]*

Oct. 1937

15.80

SANITARY SEWER MANHOLE  
 F.L.E. 21.25  
 TOP 23.50

TROY, OH  
 801 W. Main St.

SSA #1030

8-OH-281  
 05-456-014-081



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GRILLED HOLE IN RET. WALL

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35'

25.93

27.43

27.21

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CONC. DRIVE

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27.33

27.18

SEPTIC TANKS

26.95

27.17

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CONC. DRIVE

SEPTIC TANKS

OVER

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FLOOR 27.63

SERVICE STATION

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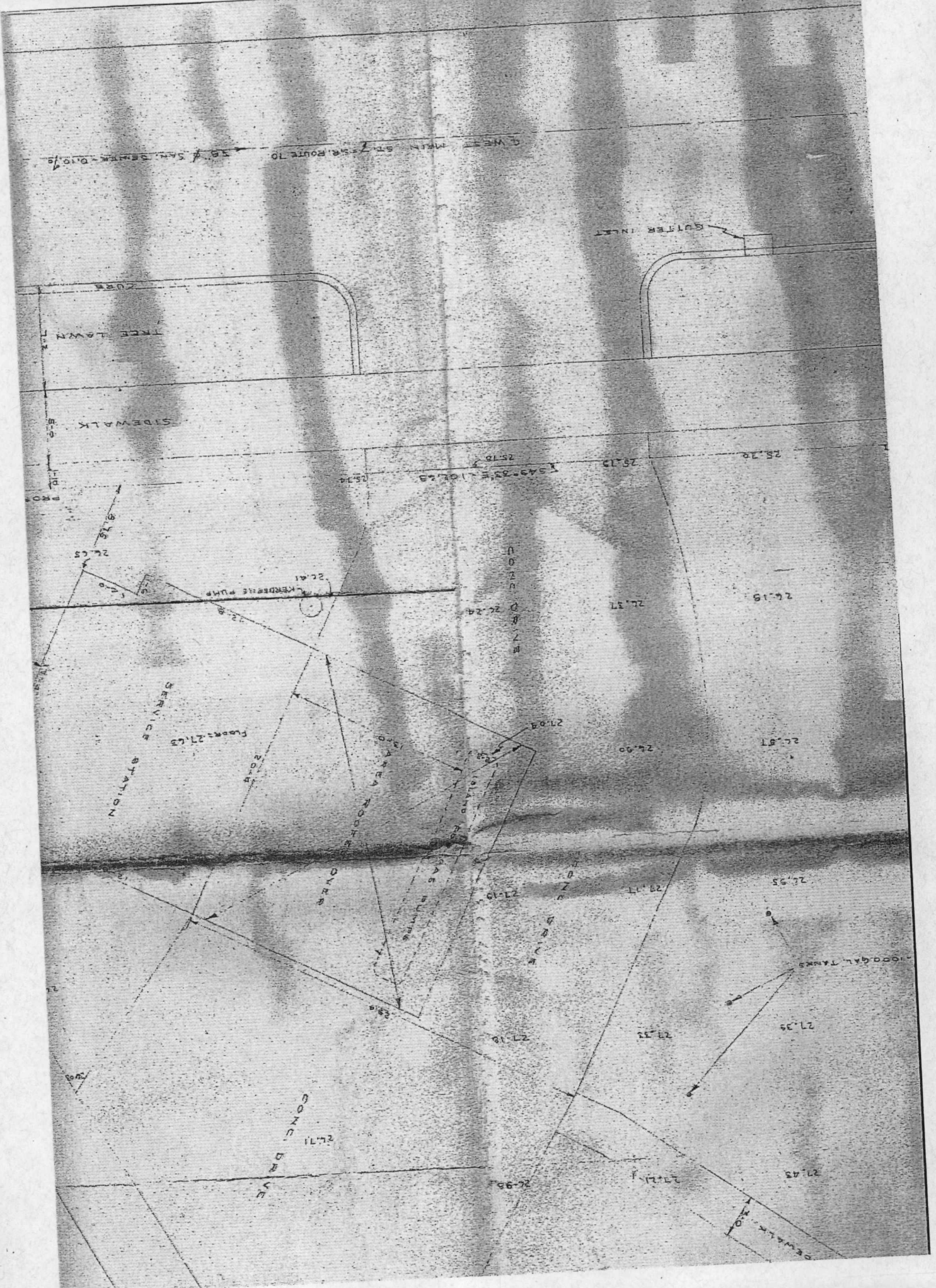
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SIDEWALK





WEST MAIN ST. 7' WIDE, ROUTE TO  
S.E. 1/4 SAN. SEWER D.V. 1/2

SEWER INLET

COURT  
SIDEWALK

SEWER PUMP

SERVICE STATION  
ELEVATION 27.63

SEWER  
OVER

CONC. DRY  
ELEVATION 26.71

1000 GAL. TANKS

SEWER  
NO.



8-04-281

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FILL CAPS

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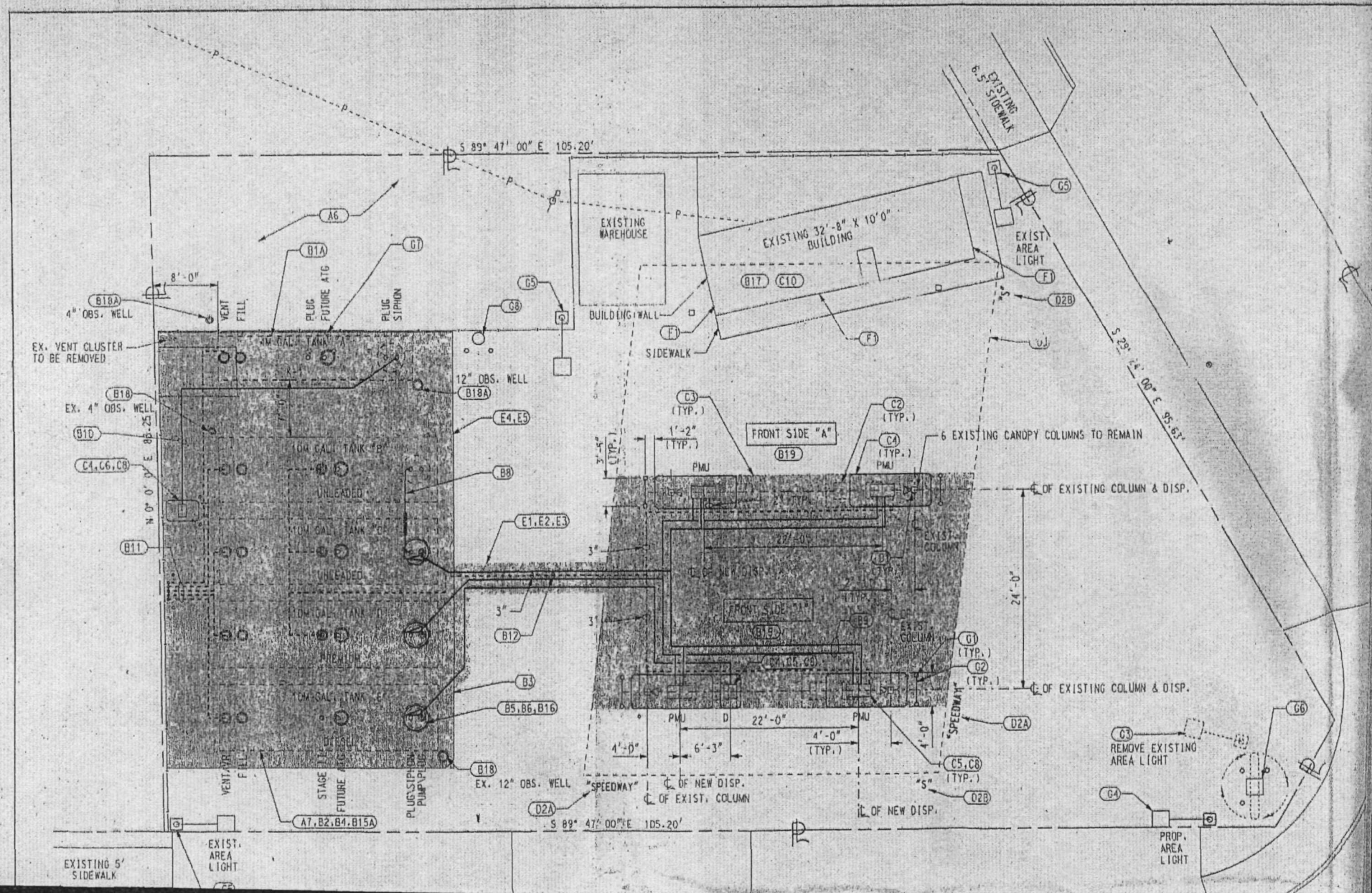
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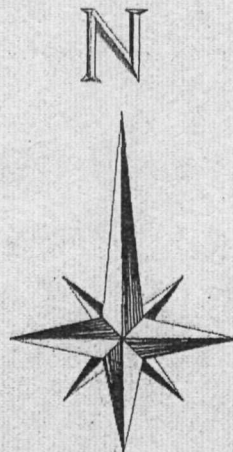


## WEST MAIN STREET

### U.G. PIPING LEGEND

- NEW PRODUCT PIPING
- NEW VENT & STAGE II PIPING
- EXISTING PRODUCT PIPING (TO REMAIN)
- EXISTING PRODUCT PIPING (TO BE REMOVED)
- STM--- STORM SEWER
- SS--- SANITARY SEWER
- G--- GAS LINE
- W--- WATER LINE
- T--- TELEPHONE LINE
- P--- POWER LINE
- C--- CABLE LINE

 MINIMUM AMOUNT OF PAVEMENT TO BE REMOVED



### A. GENERAL NOTES:

1. GENERAL SCOPE OF WORK INCLUDES: TANK UPGRADE, K-1 TANK INSTALLATION, PIPING REPLACEMENT, STAGE II VAPOR RECOVERY PIPING, PROVISIONS FOR FUTURE AIO, ILS-250 INSTALLATION, NEW DISPENSERS, PAVING, EXTERIOR CANOPY AND BUILDING FASCIA, PERIMETER LIGHTING, AND SIGN INSTALLATION. SEE NOTES, SITE PLANS, AND OWNER'S STANDARD SPECIFICATIONS FOR SPECIFIC DETAILS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UTILITY COMPANIES TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION.
3. RESTORE TO ORIGINAL OR BETTER CONDITION ALL AREAS DISTURBED BY CONSTRUCTION. UPON COMPLETION, CONTRACTOR SHALL POWER WASH ALL PAVING TO OWNER'S SATISFACTION.
4. CONTRACTOR SHALL SHOW ALL MODIFIED PIPING, CONDUIT RUNS, UTILITIES AND ANY MODIFICATIONS MADE TO THE ORIGINAL DRAWINGS ON "AS-BUILT" PRINT AND TURN OVER TO OWNER'S REPRESENTATIVE UPON COMPLETION.
5. BID AS ALTERNATE A: CONTRACTOR SHALL SUBMIT A PRICE FOR AN ACCELERATED SCHEDULE. SEE OWNER'S REPRESENTATIVE FOR A SCHEDULE.
6. CONTRACTOR SHALL REMOVE AND DISPOSE OF THE CONCRETE AND SOIL AS NECESSARY TO COMPLETE PROPOSED CONSTRUCTION. ANY IMPACTED SOILS ENCOUNTERED SHALL BE STOCKPILED AS SHOWN ON PLOT PLAN AND PER DIRECTION OF OWNER'S REPRESENTATIVE. ALL SOIL SHALL BE PLACED ON MINIMUM 6 MIL. VISQUEEN AND COVERED WITH 40' X 100' SHEETS OF 4 MIL. VISQUEEN. A SAND BERM SHALL BE CONSTRUCTED AROUND ENTIRE PILE OF SOIL TO HOLD THE VISQUEEN DOWN. ALL SEAMS OR OVERLAPS IN THE VISQUEEN COVERING SHALL BE SECURED WITH OLD TIRES OR EQUIVALENT.
7. CONTRACTOR SHALL DETERMINE THE NEED FOR AND PROVIDE ANY DEWATERING NECESSARY TO PREVENT TANKS FROM FLOATING WHILE THE TANKS ARE NOT COVERED BY PROPER OVERBURDEN. ANY DEWATERING DEEMED NECESSARY SHALL BE BID AS A SPECIFIC LINE ITEM IN THE BID. DISPOSAL OF CONTAMINATED WATER SHALL BE THE OWNER'S RESPONSIBILITY.

### B. TANKS AND PRODUCT PIPING:

1. CONTRACTOR SHALL PROVIDE PROPER DOCUMENTATION WITH PROPOSAL TO VERIFY THAT TANK AND PIPING SUBCONTRACTOR HAS PROPER INSTALLER CERTIFICATION REQUIRED BY THE STATE OF OHIO.
- 1A. INSTALL ONE (1) 4,000 GALLON DOUBLEWALL STI-P3 K-1 TANK PER DETAILS ON STANDARD DRAWING SERIES #D15. LOCATE TANK, TANK OPENINGS, AND REINFORCED CONCRETE SLAB PER PLOT PLAN. TOP OF TANK ELEVATION SHALL BE SET 3'-0" BELOW THE LOWEST TANK SLAB ELEVATION. THIS ELEVATION MUST BE VERIFIED BY OWNER'S REPRESENTATIVE. CATHODIC PROTECTION SYSTEM TO BE APPROVED BY OWNER'S CORROSION MITIGATION REPRESENTATIVE PRIOR TO BACKFILLING TANK.

NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR UNLOADING TANK. UNLOADING OF TANK BY ROLLING WILL NOT BE ALLOWED. CONTRACTOR SHALL COORDINATE DELIVERY DATE OF TANKS WITH OWNER'S REPRESENTATIVE.

2. CONTRACTOR SHALL PER WELL M.H. COVER PER BOXES NOT COLOR SPEC. CONTRACTOR SHALL PER SPECIFICATIONS.
3. CONTRACTOR SHALL RE
4. UPGRADE TANKS TO IN STANDARD DRAWING SE
5. CONTRACTOR SHALL IN SUBMERSTIBLE PUMPS V SHALL MODIFY PIPING
6. CONTRACTOR SHALL RE PUMPS AND RELATED S AND ONE (1) 3/4" H.P. EQUIPMENT (FURNISH EXISTING CONDUITS, PER DRAWING #4997-1 GROUND CONDUCTOR F BAR KIT IF NOT EXI
7. BID AS ALTERNATE B FROM EXISTING DISPI LOCATION OF CONDUIT
8. INSTALL SIPHON LINE
9. INSTALL NEW 2" DOW STANDARD SPECIFICAS HARD PIPE TO DISPEN ELBOW, AND RISER. ROUTING, THE ALTE PRIOR TO WORK BEIN
10. INSTALL NEW 2" SIV PLOT PLAN, OWNER'S DRAWING SERIES #S1 USE ADAPTER, 90 DE PRODUCT OR VENT PI OWNER'S REPRESENTA
11. INSTALL 2" FIBERGL OWNER'S STANDARD #D15.
12. INSTALL STAGE II P PER PLOT PLAN AND DISPENSER PAN. BE CONSISTENT AND SPE AND OTHER PROBLEMS



TROY, OH  
801 W. Main St.

SSA #1030

05-456-01-281

EM STREET

13. BID AS ALTERNATE C: BASED UPON THE LAYOUT SHOWN, OUR CALCULATIONS INDICATE THAT A DROP OUT TANK IS NOT REQUIRED AT THIS LOCATION. CONTRACTOR SHALL DETERMINE ELEVATIONS AT ISLANDS AND TANK SLAB. ONCE CONSTRUCTION HAS STARTED AND ANY UNDERGROUND CONFLICTS ARE IDENTIFIED, CONTRACTOR SHALL VERIFY WITH OWNER'S REPRESENTATIVE IF A DROP-OUT TANK IS REQUIRED. INSTALL DROP-OUT TANK AND CONNECT SIPHON TO PREMIUM UNLEADED PUMP WHERE SHOWN IF REQUIRED. NOTE: CONTRACTOR SHALL CONDUCT A 3 PSI AIR AND SOAP TEST ON DROP-OUT TANK UPON ITS ARRIVAL AND IMMEDIATELY NOTIFY OWNER'S REPRESENTATIVE OF ANY PROBLEMS.
14. OWNER WILL ARRANGE TO HAVE A THIRD PARTY CONDUCT STAGE II VAPOR RECOVERY TESTS (PRESSURE DROP TEST, BLOCKAGE TEST, AND PRESSURE DECAY/LEAK TEST) AFTER COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT TO CONTRACTOR TO INSURE UNDERGROUND SYSTEM IS INSTALLED AND OPERATING PROPERLY. THE OWNER WILL ONLY PAY FOR ONE SUCCESSFUL SET OF CARB TESTS. ANY COSTS ASSOCIATED WITH FAILED TESTS AND SUBSEQUENT REPAIRS/RETESTS WILL BE THE CONTRACTOR'S RESPONSIBILITY.
15. ALL EXISTING PRODUCT PIPING THAT WILL NOT REMAIN IN SERVICE AFTER CONSTRUCTION SHALL BE REMOVED. CONTRACTOR SHALL VERIFY ROUTING PRIOR TO SAW CUTTING OR REMOVING CONCRETE.
- 15A. INSTALL MANHOLES, RISERS, CONDUITS, JUNCTION BOXES, ETC., FOR FUTURE TANK GAUGE SYSTEM PER DRAWING \*515E. CONDUITS SHALL NOT BE ROUTED VIA EXISTING POWER/CONTROL WIREWAYS. DO NOT INSTALL TANK GAUGES, PROBES OR WIRING. INSTALL PULL STRING IN ALL NEW CONDUITS.
16. INSTALL MANHOLES, RISERS, CONDUITS, JUNCTION BOXES, ETC., FOR SUMP MONITOR PER DRAWING \*D15A AND \*15-E-2A. INSTALL VEEDER ROOT ILS-250 SYSTEM (FURNISHED BY OWNER), RELATED CONDUITS, AND WIRE PER MANUFACTURER'S INSTRUCTIONS.
17. CONDUITS FOR THE ILS-250 SHALL RUN OVERHEAD AFTER ENTERING THE BUILDING IF REQUIRED. MOUNT EQUIPMENT IN STORAGE AREA NEAR ELECTRICAL PANELS.
18. CONTRACTOR SHALL BE RESPONSIBLE FOR EXISTING OBSERVATION WELLS THAT WILL REMAIN IN PLACE AFTER CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY SUCH WELLS THAT ARE DAMAGED DURING CONSTRUCTION. IF DAMAGE TO AN EXISTING WELL IS INEVITABLE, CONTRACTOR SHALL INCLUDE COST TO REPAIR OR REPLACE IN BASE BID.
- 18A. INSTALL ONE (1) 12" TANK PIT OBSERVATION WELL AND ONE (1) 4" TANK PIT OBSERVATION WELL PER PLOT PLAN AND DETAILS ON DRAWING \*D15A.
19. PRODUCT PIPING LINE-UP AND FRONT SIDE "A" OF DISPENSERS SHALL BE AS SHOWN ON THIS DRAWING. PIPING AND CONDUIT LOCATION AND SPACING UNDER DISPENSERS SHALL BE PER DRAWING \*5050-3A AND \*5050-3B.
- C. ISLAND AND DISPENSER DETAILS:
  1. THE CONTRACTOR IS RESPONSIBLE FOR PURGING OF THE SYSTEM NECESSARY AT START UP. PURGING SHALL BE CONSIDERED COMPLETE ONLY IF PRECISION TEST CONFIRMS SYSTEM IS FREE OF AIR. COST OF ANY ADDITIONAL LINE TESTS DUE TO AIR IN THE LINES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
  2. REMOVE EIGHT (8) EXISTING TOKHEIM 162 DISPENSERS AND DISPENSER EQUIPMENT AND HOLD FOR SALVAGE BY OWNER. DRAIN ALL GASOLINE, REMOVE HOSES AND RISERS FROM DISPENSERS AND PLUG OPENINGS TO PREVENT LEAKAGE OF GASOLINE.
  3. REMOVE FOUR (4) EXISTING RAISED ISLANDS AS SHOWN ON PLOT PLAN. REPLACE WITH CONCRETE POURED FLUSH WITH ADJACENT PAVEMENT WHERE REQUIRED PER STANDARD SPECIFICATIONS.
  4. CONSTRUCT FOUR (4) NEW 4'-0" X 10'-0" RAISED CONCRETE ISLANDS (WRAP AROUND CANOPY FOOTERS) AND TWO (1) 2'-6" X 4'-0" RAISED CONCRETE ISLAND PER PLOT PLAN, STANDARD SPECIFICATIONS, AND DETAILS ON DRAWING \*5050 AND DRAWING \*5050-3A AND \*5050-3B. INSTALL OWNER FURNISHED DISPENSER DEEP SUMPS. ISLAND CONCRETE SHALL HAVE TROWEL FINISH. TOP OF ISLANDS TO BE 6" MINIMUM AND 9" MAXIMUM ABOVE ADJACENT PAVEMENT. INSTALL ADJACENT ISLANDS AT EVEN ELEVATION. CONTRACTOR TO PAINT ISLAND FORMS "SHERWIN-WILLIAMS" EMRO DARK GREY #4300.
  5. INSTALL FOUR (4) NEW GILBARCO ADVANTAGE #B7300 DISPENSERS WITH VACUUM ASSIST AND ONE (1) REBUILT GILBARCO H1118 DISPENSER FURNISHED BY OWNER AS INDICATED ON PLOT PLAN. SOME DISPENSER ASSEMBLY REQUIRED. INSTALL RELAY MODULES, CONSOLE, ETC. INSTALL STAGE II HOSES, STAGE II NOZZLES, AND OTHER OWNER FURNISHED ITEMS. REUSE ONE (1) 3/4" CONDUIT AND ONE (1) 1/2" CONDUIT.
2. CANOPY GRAPHICS WILL BE INSTALLED BY OTHERS. CONTRACTOR SHALL PROVIDE ELECTRICAL SERVICE TO SIGNS AS LOCATED ON PLOT PLAN AND LISTED BELOW. REFER TO EMRO GRAPHICS CONTROL DRAWING #5235-E-4D FOR SIGNAGE DETAILS.
  - A. "SPEEDWAY" CANOPY FASCIA SIGN (TYPICAL (2) PLACES).
  - B. LOGO CANOPY FASCIA SIGN (TYPICAL (2) PLACES).
3. FASCIA VENDOR SHALL FURNISH AND INSTALL 18" HIGH ALUCABOND CANOPY FASCIA ON FOUR (4) SIDES OF THE CANOPY PER PLOT PLAN. FASCIA VENDOR SHALL REMOVE AND DISPOSE OF THE EXISTING FASCIA AND MAKE MODIFICATIONS AS REQUIRED TO RECEIVE NEW VERTICAL FASCIA.
- E. PAVING WORK DETAILS:
  1. ALL PAVEMENT REMOVED FOR CONSTRUCTION, SOME DENOTED BY SHADED AREAS, SHALL BE SAW CUT TO PROVIDE A NEAT AND PROFESSIONAL APPEARANCE WHEN NEW PAVEMENT IS PLACED. ALL PAVEMENT REMOVED SHALL BE REPLACED WITH ORIGINAL TYPE PAVEMENT UNLESS DIRECTED OTHERWISE BY OWNER'S REPRESENTATIVE. NEW PAVEMENT SHALL BE AS DETAILED ON DRAWING \*12 AND STANDARD SPECIFICATIONS.
  2. SHADED AREAS SHOW MINIMUM AMOUNT OF PAVEMENT TO BE REPLACED. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ACTUAL REPLACEMENT QUANTITIES NECESSARY. ALL SUCH COSTS SHALL BE INCLUDED IN THE BASE BID.
  3. CONTRACTOR SHALL PATCH TRENCHES IN CONCRETE AREAS WITH 5" THICK NORMAL STRENGTH CONCRETE AND TRENCHES IN ASPHALT AREAS USING 5" THICK NORMAL STRENGTH ASPHALT. BACKFILL MATERIAL SHALL MATCH EXISTING BACKFILL PER DIRECTION OF OWNER'S REPRESENTATIVE. CONTRACTOR SHALL REMOVE AND REPLACE PAVEMENT ADJACENT TO TRENCH AS NECESSARY TO MEET ANGLE OF REPOSE OF TRENCH WALL AND ENSURE COMPLETE BACKFILL AND COMPACTION.
  4. CONTRACTOR SHALL PROVIDE CONCRETE JOINTS AS REQUIRED PER STANDARD SPECIFICATIONS. CONTROL JOINTS SHALL LIMIT CONTINUOUS CONCRETE SLAB AREAS TO APPROXIMATELY 12' X 12' SQUARES. LOCATION OF JOINTS SHALL BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO PLACEMENT. SEAL ALL JOINTS PER SPECIFICATIONS. SEE DRAWING \*12 FOR DETAILS AND USE OF JOINTS. NOTE SPECIAL SAWCUT REQUIREMENTS ON TANK SLAB PER STANDARD 15 SERIES DRAWINGS.
  5. CONSTRUCT NEW CONCRETE TANK SLAB AND SAWCUT PER PLOT PLAN, STANDARD SPECIFICATIONS, AND DRAWING \*D15A. TANK SLAB SHALL BE RAISED TO GRADE. CONTRACTOR SHALL VERIFY THE NEED FOR THIS REQUIREMENT WITH OWNER'S REPRESENTATIVE PRIOR TO POURING CONCRETE. INSTALL 4' WIDE MIN. NORMAL STRENGTH ASPHALT APRON AROUND SLAB (TYPICAL). TAPER FROM FINISH ELEVATIONS OF NEW SLABS TO EXISTING ASPHALT. EXISTING ASPHALT WITHIN THE 4' WIDE APRON SHALL BE SAW CUT AND REMOVED.
- F. BUILDING WORK DETAILS:
  1. FASCIA VENDOR SHALL FURNISH AND INSTALL 36" HIGH ALUCABOND BUILDING FASCIA ON THREE (3) SIDES OF THE BUILDING PER PLOT PLAN. FASCIA VENDOR SHALL REMOVE AND DISPOSE OF THE EXISTING FASCIA AND MAKE MODIFICATIONS AS REQUIRED TO RECEIVE NEW VERTICAL FASCIA.
  - G. MISCELLANEOUS:
    1. CONTRACTOR SHALL FURNISH AND INSTALL SEVENTEEN (17) 6" GUARD POSTS PER PLOT PLAN AND DETAIL ON DRAWING \*12. PRIME (1) COAT AND PAINT (2) COATS, "SHERWIN-WILLIAMS" EMRO RED #199C.
    2. INSTALL CROSS BARS AND SNAP FRAME SIGN BETWEEN GUARD POSTS PER PLOT PLAN AND DRAWING \*12. REQUIRED FOUR (4) PLACES.
    3. CONTRACTOR SHALL REMOVE ONE (1) EXISTING LIGHT, POLE, AND BASE.
    4. CONSTRUCT ONE (1) LIGHT POLE BASE PER EXISTING LIGHT POLE BASES AND PER DETAILS ON DRAWING \*12. INSTALL LIGHT POLES AND FIXTURES (FURNISHED BY OWNER). INSTALL ONE (1) 3/4" CONDUIT TO THE BASE FROM EXISTING ELECTRICAL PANELS PER THE OWNER'S REPRESENTATIVE AND WIRE FIXTURES. CONTRACTOR IS RESPONSIBLE FOR TOUCH-UP PAINTING ON POLES, ANCHOR BOLTS, ETC.
    5. CONTRACTOR SHALL REMOVE THREE (3) EXISTING LIGHTS AND POLES. CONTRACTOR SHALL INSTALL NEW FIXTURES AND POLES (FURNISHED BY OWNER) ON EXISTING BASES. REUSE EXISTING CONDUITS AND PULL NEW WIRE. WIRE LIGHTS PER OWNER'S SPECIFICATIONS AND NATIONAL, STATE, AND LOCAL CODES.

DIO AS ALIENATE C) INSTALL NEW DRUMMER SEATING FOR 1990 AND DOWNTOWN DRUMMER

7. CONTRACTOR SHALL REMOVE EXISTING AIR SERVICE AND HOLD FOR SALVAGE BY OWNER.
8. CONTRACTOR SHALL INSTALL 3/4 H.P. ECO "WINDY" TIRE INFLATOR PER MANUFACTURER'S SPECIFICATIONS.

- \*#202-1 PL. PLAN - 1994 CONSTRUCTION
- \*#12 YARD EQUIPMENT INSTALLATION & PAVING DETAILS
- \*#013A PRODUCT TANK INSTALLATION DETAILS DOUBLE-WALL TANKS & DOUBLE-WALL PIPING
- \*#015B PUMP & PIPING DETAILS DOUBLE-WALL TANKS & DOUBLE-WALL PIPING
- \*#515A PRODUCT TANK INSTALLATION & MISC. DETAILS
- \*#515B PUMP & PIPING DETAILS SINGLEWALL FIBERGLASS PIPING
- \*#515E EMCO WHEATON AUTOMATIC TANK GAUGING
- \*#15F-1 TANK INSTALLATION & PIPING DETAILS
- \*#15-E-2A SUMP MONITORING DETAILS VEEDER-ROOT ILS-250 SUMP MONITOR
- \*#15F-3A STAGE II VAPOR RECOVERY DISP. PIPING
- \*#515R PUMP AND PIPING DETAILS
- \*#4997-8 WIRING DIAGRAM - GILBARCO
- \*#4997-16 WIRING DIAGRAM - GILBARCO
- \*#4997-18B WIRING DIAGRAM - GILBARCO
- \*#5011-10A 3M 1-COM WIRING DIAGRAM
- \*#5011-10B CANOPY & AREA LIGHTING & INTERCOM DETAILS
- \*#5011-E-7 STANDARD EMRO PARALLEL CANOPY LIGHTING DETAILS
- \*#5050 ISLAND & SLAB DETAILS
- \*#5050-3A ISLAND OPENING, PRODUCT, & CONDUIT RISER DIAGRAMS - GILBARCO
- \*#5050-3B DISPENSERS
- \*#5050-3B ISLAND OPENING, PRODUCT, & CONDUIT RISER DIAGRAMS - GILBARCO
- \*#5050-3B DISPENSERS
- \*#5080-E-17 EMRO 63 S.F. SIGN DETAILS
- \*#5235-E-4D EMRO GRAPHICS CONDUIT DRAWING

STAGE 1: FIBERGLASS VAPOR RECOVERY PIPING AND RELATED EQUIPMENT  
PLAN AND DRAWING #15F-1. CONTRACTOR SHALL STUB UP PIPING WITHIN  
R PAN. CONTRACTOR SHALL INSURE THAT PIPING IS INSTALLED WITH  
NT AND SPECIFIED SLOPE PER DRAWING #15F-1 TO AVOID LIQUID TRAPS  
R PROBLEMS.

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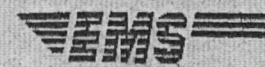


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